FINAL REPORT

Comparison of Applicable California (ARB, SCAQMD) Requirements and Federal NESHAP Requirements for Five Source Categories:

Aerospace, Chrome Plating, Gasoline Distribution, Secondary Lead, and Wood Furniture

Prepared for
ARB and U.S. EPA Management

by
The Sacramento Protocol Team

November 24, 1997

The Sacramento Protocol Team

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This report presents the findings, conclusions, and recommendations of the Sacramento Protocol Team. The report has not been reviewed by the management of the California Air Resources Board, the South Coast Air Quality Management District, or the U.S. Environmental Protection Agency. As such, the report does not necessarily represent the views of these agencies.

Cal/EPA
California Environmental Protection Agency

Air Resources Board

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November 25, 1997

Dear Sir or Madam:

Release of Final Report
"Comparison of Applicable California Requirements and Federal NESHAP Requirements for Five Categories"

I have enclosed a copy of the final report on the detailed, technical evaluation of California and federal requirements for five stationary source categories in support of efforts to integrate the federal air toxics program with California's air pollution control program. The report has been prepared by a team representing the United States Environmental Protection Agency (U.S. EPA), the California Air Resources Board (ARB), and the South Coast Air Quality Management District (SCAQMD). The source categories evaluated were: aerospace, chrome plating, gasoline distribution, secondary lead smelting, and wood furniture manufacturing.

The purpose of the evaluation was to determine which applicable SCAQMD and ARB air pollution control requirements the U.S. EPA believes are technically equivalent to the federal requirements. In those situations where the U.S. EPA believes the SCAQMD and ARB requirements are not technically equivalent, the report identifies what additions or changes the U.S. EPA would accept as technically equivalent to the NESHAP requirements.

This report should not be viewed as indicating that the SCAQMD and ARB management agree that all the additions or changes identified in this report are needed, or that the U.S. EPA conclusions and approach to equivalency contained in Appendix E are appropriate. The report does, however, identify the types of issues that are involved in making equivalency determinations and approving alternative requirements. As a result, we believe that the report will be useful to policymakers in identifying approaches that can be taken to successfully integrate federal and California programs. Therefore, we welcome your comments on the report.

Questions or comments on this report should be directed to Mr. Bob Fletcher at (916) 322-6023, or Mr. Dan Donohoue at (916) 322-8277.

Sincerely,

/s/

Michael P. Kenny
Executive Officer

Enclosure

cc: Mr. Bob Fletcher, Chief
Emissions Assessment Branch
Air Resources Board

Mr. Dan Donohoue, Manager
Technical Analysis Section
Air Resources Board

MEMORANDUM

TO: Interested Persons

FROM: James Morgester, Chief
Compliance Division
California Air Resources Board

Bruce Buckheit, Director
Air Enforcement Division
United States Environmental Protection Agency

DATE: November 24, 1997

SUBJECT: TRANSMITTAL OF FINAL REPORT OF THE SACRAMENTO PROTOCOL FIELD STUDY

We are pleased to transmit the attached report which presents the findings of the Sacramento Protocol Field Study. The report is the result of a cooperative effort among the South Coast Air Quality Management District, the California Air Resources Board, and the United States Environmental Protection Agency.

Enclosure

ARB will be sending a copy of the report to the following people:

Robert Buettner
Drek Newton
Imam Mohammed
Bill Zobel
Miriam Lev-On
Dan Phelan
Brian Bateman
Ken Selover
Val Siebal
Stew Wilson
Karen Lindh
Roger Isom
Greg Meisinger
John Casey
Mike Carroll
Don Trueblood
Mike Sewell
Barbara Lee
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Craig Anderson
Ben Shaw
Tom Jackson
Mike Wang
Clay Hinkle
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Rebecca Gaffney
Katy Wolf
Tim Carmichael
Gail Feuer
Jeff Sickenger
Dan Buell
Pay Leyden
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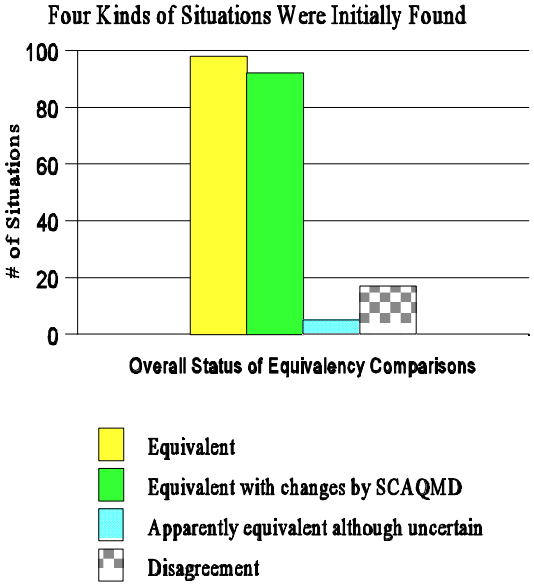
TABLE OF CONTENTS

EXECUTIVE SUMMARY

OVERVIEW

This report provides the results of the California Air Resources Board (CARB or State), the United States Environmental Protection Agency (EPA) and the South Coast Air Quality Management District (SCAQMD or District) efforts to determine whether identified State and District air pollution control requirements in California are technically equivalent[1] to the requirements found in five Federal NESHAPs. Chapters 1 and 2 of this report explain the background to the *Sacramento Protocol* and the efforts undertaken by a team of EPA, CARB and SCAQMD regulatory and compliance experts in arriving at the results presented in this report. Chapters 3 and 4 summarize the results of the comparisons developed by the team, respectively, for emissions-related and monitoring/recordkeeping related requirements. Chapter 5 identifies the resolution for the 24 issues that the team referred to CARB and EPA management to resolve. Chapter 6 present the team's conclusions.



The *Sacramento Protocol* was developed to test whether a team of government experts could efficiently compare and resolve differences between the Federal, State and District air pollution control requirements. The team followed the *Sacramento Protocol*, as explained further in Chapter 1, by developing detailed tables (a paper exercise) that compared the SCAQMD/CARB requirements and the NESHAP requirements. This was followed by a week of inspections in Los Angeles which allowed the team members to evaluate "on the ground" the differences between the rules found in the paper exercise. The inspections also provided EPA staff an opportunity to have a first-hand look at SCAQMD permits and their associated conditions, the permit evaluation process, inspection staff capability, source compliance status, and local rule structure.

As a part of the inspections, the team expanded and further detailed the paper comparisons. The accompanying figure provides the distribution of the four possible outcomes reached by the team in its initial deliberations on equivalency after the conclusion of the paper comparison and site inspection process. The team found many of the requirements to be directly

[1]Whenever the term "equivalent" is used in this report, it refers to the results of a technical or engineering comparison and not a formal determination required under Section 112(l) of the Clean Air Act.

equivalent, and almost a similar number of situations where California requirements could be made equivalent to the NESHAP requirements by making changes or revisions to the applicable permits or rules. The third category related to rule areas where the end result of the comparison appeared equivalent but where there remained some uncertainty about the exactness of the determination. Accordingly, the team recommended specific conditions to ensure equivalency and, with these conditions, viewed the requirements as technically equivalent. However, in recognition that the equivalency decisions reached here may set a precedence for future decisions, the team believed that these issues should be referred to CARB and EPA management for final resolution. The fourth category refers to situations where the team was unable initially to agree on how to address a particular requirement in the NESHAP. The disagreements centered on differences of opinion on the equivalency of a substitute requirement or on the necessity of a particular NESHAP requirement.

In doing the rule comparisons, the team found that the SCAQMD and CARB rules achieved most of the emission reductions expected by the NESHAP standards. However, the NESHAPs do provide additional reductions in hazardous air pollutant emissions and add enhanced compliance assurance measures.

To ensure a full discussion on the areas of uncertainty and disagreements, the team involved OECA and CARB enforcement management to discuss and negotiate resolution of the 24 areas of uncertainty or disagreement identified. With the help of management input and additional site visits, the team was able to resolve all of the remaining issues. As a result of the entire comparison process, the team has found suitable substitute measures via permit and/or rule changes which would make the SCAQMD rules technically equivalent to the five NESHAPs examined.

Chapters 3 and 4 explain the initial evaluations and the specific findings developed by the team based on two major areas: (1) the applicability, compliance dates, emission limitations, and work practice requirements, and (2) monitoring, recordkeeping and reporting. In addition, detailed tables are provided in Appendix C for all of the initial comparisons for these two areas. Chapter 5 presents the final evaluations and findings developed by the team for the specific areas of uncertainty and disagreement, based on the guidance from the enforcement chiefs.

FINDINGS AND CONCLUSIONS

Overall, the team found:

- For the five source categories reviewed, sources in the SCAQMD are already achieving most of the emission reductions anticipated by the NESHAP.

- Additional emission reductions, beyond those already being achieved by the district's requirements, could be realized by implementing about a dozen requirements (related to applicability, compliance dates, emission limits, and work practice standards) identified in the various NESHAPs but not required by the existing CARB or SCAQMD requirements.

- Additional compliance assurance information could be provided by implementing numerous compliance assurance measures (work practice requirements, operation and maintenance and other plan requirements, recordkeeping related monitoring requirements, and recordkeeping and reporting requirements) contained in the various NESHAPs.

- The existing NESHAP development process, the subpart E equivalency process, and the NESHAP implementation process needs to be carefully examined to identify where improvements can be made to streamline the integration of District, State, and Federal air toxics requirements in California.

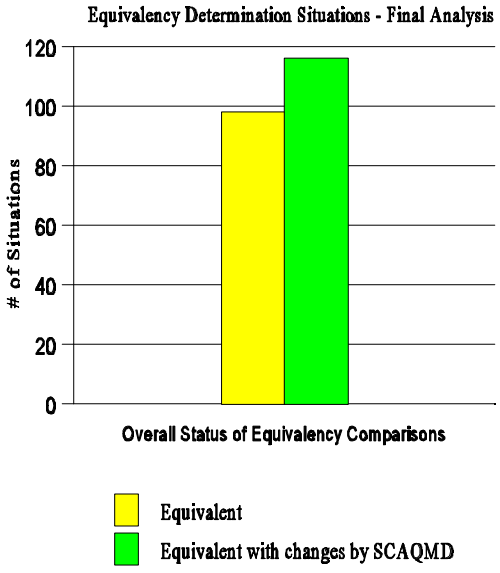
In reaching these findings, the team had agreed at the outset that specific NESHAP requirements directly related to emission limits, applicability, compliance dates, test methods, and monitoring of critical emissions related parameters should be complied with. During its deliberations and inspections, the team found that not all of the potential substitute requirements are explicitly found in current SCAQMD or State regulations. In addition, the team did not find existing substitute requirements for some NESHAP emission reduction and compliance requirements. As a consequence, to achieve rule equivalency in these areas, CARB and the SCAQMD agreed that these requirements needed to be incorporated into applicable rules or to be placed as federally-enforceable conditions in the facility's permit to operate (usually a Title V permit).

The rule comparison and inspection process revealed that sources, in many situations, have already installed control equipment and continuous emission/parameter monitoring equipment consistent with the NESHAP and perform many of the work practices (or very similar work practices) required by the NESHAP. Some sources had done so in response to the pending NESHAP requirements. Sources were also found to be subject to District operating permits which contained conditions beyond those specified in the applicable SCAQMD rules. In addition, District permits had recordkeeping requirements which were similar to, but not as

detailed, as the NESHAP requirements. Another finding was that District permits and rules did not have reporting requirements similar to the NESHAP except in the case of breakdown reporting.

Most of the discussion and differences revolved around the necessity of certain NESHAP requirements in California that relate almost exclusively to the areas of work practice standards, and monitoring, recordkeeping, and reporting (MRR). The team agreed that some of these requirements have a relatively small impact on the overall emission reductions achieved by the NESHAP. While this is typical for most rules, this situation resulted in much discussion before the team could reach an agreement on an equivalent substitute rule/permit or changes needed to create an equivalent substitute rule/permit. However, for some requirements, the team could not agree the degree of potential emission reductions; for example, emission reductions associated with the work practice requirement to develop an implementation plan (explaining how an operator would comply with certain work practices) are difficult to quantify. Overall, the team agreed that NESHAP requirements in the work practice and MRR areas do provide value in terms of additional certainty in compliance measures and documentation of compliance in comparison to some of the existing SCAQMD and CARB requirements.

The team members also agreed that delegating, to permitting agencies, authority to make some decisions concerning alternative NESHAP requirements was appropriate and necessary. They agreed that the process for establishing alternative NESHAP requirements by the permitting agency needs to allow for flexibility, have realistic time lines, and be bounded. CARB and Region IX will work together to come up with protocols for delegating decisions to the permitting agencies for the five NESHAPs reviewed.



In closing, for the five NESHAPs examined, the team identified areas (through paper rule comparison and site inspections) where California rules did and did not specify identical requirements (see figure). For those situations which were determined not equivalent, the team, with management input on 24 issues, was able to arrive at recommendations in the form of rule changes/permit conditions or substitute requirements to achieve the emission reduction, intended environmental protection, and compliance assurance goals of the NESHAPs. The accompanying figure depicts the number of situations for which permit/rule changes or substitute requirements had to be devised to obtain rule equivalency. It should be noted that the number of situations which needed to be addressed to achieve rule equivalency do not correlate to the emission reduction goals of the rules examined. This is because of a number of factors, including the fact that most of the requirements directly related to

emission reductions were already required by the District or CARB requirements (i.e., VOC and particulate matter rules, toxic rules, and new and modified source review requirements, although VOC requirements do not in all cases reduce non-VOC HAPs)).

IMPLEMENTATION OF SACRAMENTO PROTOCOL EQUIVALENCY COMPARISONS

The *Sacramento Protocol* team focused on identifying and resolving equivalency issues. It was not the task of the team to identify how the decisions coming out of this process would be implemented or what changes could be made to the existing structure to streamline the integration of air toxics requirements. The team agreed that EPA and the California Section 112(l) Negotiating Team should be responsible for determining how to proceed with the next steps. Resolving how the alternatives identified by the team will become federally-enforceable requirements is key to the success of this effort. All of the NESHAPs addressed in this analysis have near-term compliance dates (Wood Furniture in November, Gasoline Distribution and Secondary Lead in December, Chrome Electroplating in January, and Aerospace in September 1998). Clearly, it will not be possible to amend SCAQMD/CARB rules and complete the EPA subpart E equivalency process prior to the effective date of the NESHAP requirements. To assist in determining how to implement the results of the *Sacramento Protocol* process, the team has identified the initial positions of the EPA and California team members on this issue. These positions are identified in Global Issue EL/MRR 1 (see page 26).

A PLAN FOR FUTURE EQUIVALENCY REQUESTS

Improvements are needed in the process used to determine equivalency of district and CARB requirements. The process should allow for quicker, less resource intensive, and more certain equivalency determinations. It was not the task of the team to identify how future equivalency requests should be handled. However, the EPA has provided their initial ideas as to how we might handle future equivalency requests. This information, presented in Appendix E, has not been reviewed by, nor does it necessarily reflect the views of, the *Sacramento Protocol* team.

1. INTRODUCTION

Because many state and local programs developed their own air toxics programs, the Clean Air Act (CAA) Amendments of 1990 in Title III, Section 112(l), mandated that EPA recognize existing state or local air toxics rules and programs. Three years later, EPA promulgated guidance in the form of a rule in 40 CFR Part 63, Subpart E. As states began to consider using the Subpart E provisions, they found them to be inflexible and not as useful as they had hoped. They asked EPA to consider revisions to Subpart E which EPA is now undertaking. EPA has been working closely with the California Air Resources Board (CARB) and California districts for more than two years to determine if existing State/district, criteria and toxics, rules and programs are equivalent to corresponding National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements established pursuant to Section 112(d) of the CAA.

In March 1997, EPA representatives from the Office of Enforcement and Compliance Assurance (OECA), the Office of General Counsel (OGC), Region 9, and Office of Air Quality Planning and Standards (OAQPS) met with CARB, South Coast Air Quality Management District (SCAQMD), other California districts, and some California industrial representatives to discuss potential adverse impacts of "dual regulations." More specifically, the California stakeholders were (and still are) concerned about NESHAP requirements with near-term compliance dates that will conflict with existing State and district rules with equivalent control requirements.

At the March meeting, two initiatives addressing interim solutions and compliance audit process were discussed to address the potential problems associated with dual regulations. The interim solutions initiative looked at a number of possible options to allow district requirements to replace federal NESHAP requirements until the lengthy equivalency process could be completed. The compliance audit process was an effort to allow considerable flexibility to the districts to establish monitoring, recordkeeping, and reporting (MRR) requirements adequate to assure compliance, but more closely aligned with the Districts' existing enforcement program. In exchange for this flexibility, Districts and CARB would conduct rule effectiveness studies to determine if the alternative MRR requirements were sufficiently effective in assuring that the NESHAP-level emission reductions were being achieved. However, these projects stalled due to legal and procedural obstacles and were essentially incorporated in the *Sacramento Protocol* Project which is described on the next page.

Concerned about the lack of progress in finding solutions for the multitude of equivalency issues, the California Section 112(l) negotiating team directed CARB management to the meet with EPA in Washington. As a consequence of this Washington meeting, a top EPA enforcement official in Washington D.C. contacted Mr. Morgester, Chief of the Air Resources Board's Compliance Division, and a meeting between EPA and CARB Compliance Division and Stationary Source Division was set up for July 10, 1997.

As a result of this meeting, a team of technical experts from EPA (Headquarters and Region 9), CARB, and SCAQMD was established to meet and try to resolve differences and/or determine the equivalency of the NESHAPs and the corresponding SCAQMD and California requirements. During August and September, the team developed and completed a process for comparing and analyzing these rules and requirements for equivalency. As part of this process, applicability, compliance dates, emission limits, work practice standards, test methods, monitoring, recordkeeping, and reporting requirements for each rule were analyzed. In addition, during the week of August 18, 1997, the team conducted comprehensive field inspection in Southern California for each source category to obtain insight into the practical aspects of rule implementation.

In early October, OECA and CARB enforcement managers held discussion and conducted additional field inspections to resolve issues that the team was unable to reach consensus on.

This report presents the results, findings, and conclusions of the team.

2. *PROTOCOL, FIELD INSPECTIONS, AND RULE COMPARISON DISCUSSIONS*

The first activity of the team was to develop a protocol that described how EPA, CARB, and the SCAQMD could determine whether the California approach is equivalent to the federal approach, using SCAQMD rules as a basis for the comparison. This protocol is referred to as the *Sacramento Protocol* and is included in Appendix A.

The five source categories selected for the comparison were:

- Secondary Lead Smelting
- Chromium Electroplating
- Wood Furniture Manufacturing
- Aerospace Coatings
- Gasoline Distribution and Marketing

The *Sacramento Protocol* contains the following six major elements:

- Purpose of the analysis and comparison between the NESHAP and the State/district criteria and toxics rules,
- Proposal on how the analysis and comparison process was to be carried out,
- Listing of rules to be reviewed and the time line by when the review process would be finished,
- Major steps in an action plan for conducting the analysis and comparison (paper rule comparison and the team's inspection of representative sources in a rule category),
- Compliance assistance steps that CARB had agreed to upfront that would help meet the goals of the analysis and comparison process, and
- Draft schedule for completing all steps in the review process that would lead to a draft report on the significant results of the rule comparisons/analysis, and conclusions and recommendations based on those results.

After protocol development, both the CARB and the EPA developed rule comparison summaries (in table format), with EPA concentrating on the applicability, emission limit, and work practice parts of the rules while the CARB concentrated on the monitoring, reporting, and recordkeeping (MRR) portions of the rules.

In early August 1997, teleconferences were held where the various NESHAP and related district/state rules were compared and evaluated by the team members. This led to a "first-cut" identification of where the rules were equivalent or similar, where district or state rules or requirements should be amended or changed by Title V permit changes (or, possibly, the

NESHAP amended), and where there was disagreement over the necessity of the NESHAP requirement for California sources.

The next step was to inspect sources in the field. During the week of August 18, 1997, representatives from OECA, OAQPS, EPA (OECA, OAQPS, and Region 9), CARB (Stationary Source and Compliance Divisions), and the SCAQMD met in Los Angeles, to inspect sources and discuss equivalency issues. Inspections were held at one or more facilities with processes subject to the five NESHAP categories identified above. During these inspections, EPA observed how the inspections were conducted, what parameters were examined, what the compliance status was, and whether the process could be deemed equivalent to some of the NESHAP requirements. Also, the California stakeholders believed that the inspections would give EPA members first-hand experience with SCAQMD permits and their associated conditions, the permit evaluation process, inspection staff capability, source compliance status, and SCAQMD rule structure. The representatives also discussed how the inspection process could be substituted for some MRR requirements and other potential ways to implement the decisions reached through the protocol process; however, no conclusions were reached. At the end of each day, more meetings to discuss potential fixes or corrections were held. A copy of the detailed trip report is included in Appendix B.

After the inspections and discussion process, the rule comparison summaries were updated to reflect where a consensus on rule equivalency was reached, where rule fixes were needed, and where disagreement about rule equivalency still existed. This update was accomplished by early September 1997 and constituted a "second-cut" comparison and analysis of the NESHAPs and the district/state rules and requirements.

Then, team members conducted additional teleconferences to further analyze the results and findings of the field inspections and discussions and to further refine the determination of whether the findings indicated that the SCAQMD and/or CARB requirements were equivalent to the requirements in the corresponding NESHAP. These discussions resulted in a "final-cut" version of the rule comparison tables (see Appendix C), which indicate where the rules or requirements are equivalent or similar, where rules or requirements should be amended or changed via rule or permit, where the team was uncertain concerning the equivalency of a requirements, and where the team agreed to disagree on equivalency.

To resolve the areas of uncertainty and disagreement, the team identified the underlying issues and the positions of the various agencies. This information was provided to the management review team (Mr. Bucket of EPA/OECA and Mr. Morgester of CARB Compliance Division) to discuss and resolve. To resolve the 24 outstanding issues, the management review team engaged in discussions and conducted addition field inspections. The management review team was able to resolve all of the remaining issues.

3. *APPLICABILITY, COMPLIANCE DATE, EMISSION LIMITATIONS AND WORK PRACTICE COMPARISONS*

There are four general areas within a typical air pollution control regulation that directly relate to the emission reduction potential associated with the regulation. They are: applicability, compliance dates, emission limitations and work practice requirements. As called for in the *Sacramento Protocol*, the team reviewed SCAQMD and CARB regulatory and permit requirements (that is, substitute requirements) and the relevant NESHAP and General Provision requirements concerning applicability, compliance dates, emission limitations, and work practices. Based on this review and the field inspections, the team produced a table for each MACT standard to document the comparison between substitute and MACT requirements. The comparison tables also served the purpose of outlining areas of agreement, disagreement, and uncertainty in determining whether the SCAQMD and CARB requirements are equivalent to the applicable NESHAP requirements. These tables can be found in Appendix C. The final resolution of areas of uncertainty or disagreement can be found in Chapter 5.

The team found four possible outcomes in determining equivalency. First, the requirements could be obviously equivalent; that is, a plain reading of the requirements shows that an operator would perform the same duty and reduce emissions equally. Second, the team found that some of the substitute requirements were not equivalent in some respect to the NESHAP and that the narrow adoption of a MACT requirement would fill in the substitute rule or permit and make it equivalent to the NESHAP. Third, the team found requirements that, while not obviously equivalent, could be incorporated into a regulation or a permit in a manner that results in requirements equivalent to the MACT requirements. And finally, the team found a few areas where agreements could not be reached.

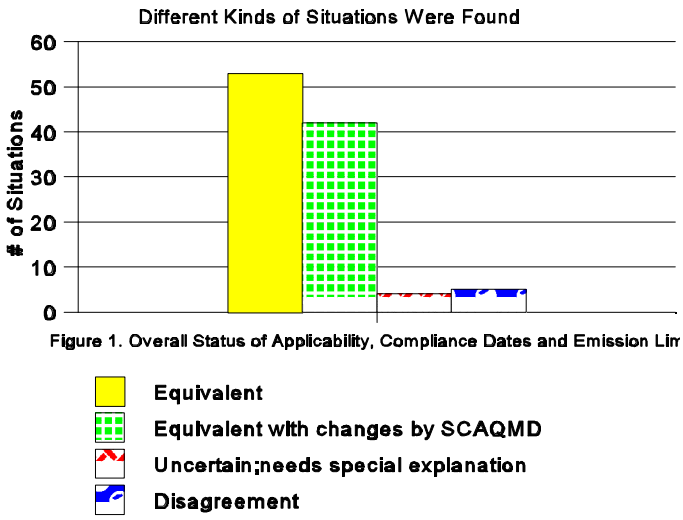


Figure 1. Overall Status of Applicability, Compliance Dates and Emission Lim

The next sections of this chapter illustrates the outcomes, highlighting the third and fourth outcomes. Figure 1 shows the distribution of the outcomes. As can be seen, there are many requirements that are simply equivalent on their face with a similar number where the

revisions are needed to make the substitute requirements equivalent, although many of these revisions are simple adjustments. There were only a few areas where the team members could not reach consensus.

The following sections present a summary of the details that can be found in the tables of Appendix C. These sections are organized by where the team generally reached agreement, where the team found agreement but thought that a detailed explanation was warranted, and where the team could not reach an agreement.

Areas of agreement

There are two areas where the team clearly agrees on whether equivalency can be determined. These areas concern aspects of the comparisons where equivalency currently exists and where modest changes to SCAQMD rules or permits would result in equivalent requirements. The areas where changes are needed for equivalency were termed "if/when" areas of equivalency to indicate clearly that these provisions are not equivalent at this time but that the team agreed that modest revisions could be made and equivalency would exist.

Equivalency currently exists

Many aspects of the substitute rules are clearly and directly equivalent to the comparable aspect of the MACT rules. In general, almost all aspects relating to applicability were found to be directly equivalent. Many aspects relating to compliance dates were found to be equivalent. With regard to emission limitations many of the substitute rules were equivalent but, as discussed under the "Equivalent If/When" section of the Chapter, the team found a number of minor revisions that would be needed to make the substitute rules equivalent. Work practices comparisons were the most difficult to evaluate and reach findings. Nevertheless, many of the substitute rules had work practices that were directly equivalent and, where they were not, the team endeavored to find ways that minor revisions to the potential substitute would result in an equivalency determination.

In comparing the applicability of the rules (that is, in comparing what industrial operations are affected by the rules), the team found that the applicabilities are equivalent with only minor differences in specific exemptions. The team agreed that the substitute and NESHAP requirements both affect the same universe of industrial operations. Where differences were found, they were easily addressed by revisions in substitution requirements where the team determined it was necessary.

The compliance dates is the date when the affected industrial operations must comply with the standards. In comparing these dates, the team found that three of the substitute requirements pre-dated the NESHAP and therefore the affected operations had already been required to comply. Thus, for the aerospace manufacturing, chromium electroplating, and

secondary lead smelting operations, the compliance dates are equivalent. However, the wood furniture compliance dates need to be amended. They would be considered equivalent if (and when) the substitute requirements incorporate a compliance date the same as the NESHAP. In addition, in comparing the requirements for gasoline distribution facilities, a slight difference in compliance dates was found. Although these requirements were reasoned equivalent by most team members, as discussed under the "Areas of Disagreement" section of this chapter, one member did not agree with the characterization that the requirements are equivalent.

In comparing the emission limits, the team found that several of the substitute rules and the NESHAPs had identical forms and numerical limits. For such situations, it is easy to determine equivalency. In doing so, the team did not thoroughly consider whether the test procedures were equivalent; this needs to be done. For example, the SCAQMD Rule 462 and the gasoline distribution NESHAP both require emissions from loading racks to be less than 10 mg/l. Rule 462 and the NESHAP use similar test methods to measure VOC (volatile organic compounds) and TOC (total organic compounds), respectively. While the team believes that, for gasoline vapors, these methods should produce essentially equivalent results, this assumption needs to be verified. Given the two rules require the same control technology with essentially identical operational requirements, the team considers these emission limit requirements equivalent (pending verification of the equivalency of the test methods).

While comparing work practices can be difficult, there are some substitute rules and permit requirements that are essentially identical to the NESHAP requirements. For example, in the gasoline distribution rules, storage vessel inspection requirements have been developed for the same technical reasons and the rules have been written with very similar language. Given such a situation, it is possible to make an equivalency determination. Another example includes the storing of solvents in closed containers.

Equivalency if/when

The team found a number of differences between the substitute rules and the MACTs. In evaluating these differences, the team primarily focused on emissions-related aspects of the differences. For example, the team found several SCAQMD VOC rules that, in effect, exempted some hazardous air pollutants (HAPs). Accordingly, the substitute rule may allow HAP emissions to occur where the NESHAP would not. In such situations, the team found that the substitute rules would only be equivalent if and when the substitute requirements were amended to address the differences.

The areas where the team found that the substitute rules and the NESHAPs were not equivalent range from the easy to understand to a few complex comparisons and solutions. Several of the substitute rules addressed VOC only and the team found that simply adding HAPs to the substitute requirements addresses the equivalency issue. Several of the substitute rules did not contain specific provisions to require new sources to comply with the NESHAP new source requirements. The team found that simply adding new source requirements consistent with the

new source NESHAP (including level of control and affected source definition) to the substitute requirements would achieve equivalency. In cases where the compliance dates for the substitution rules is further into the future than the compliance dates for the NESHAP, changing the dates to coincide easily corrects this difference.

Other areas were more difficult to address and require some additional explanation. In a few situations, the best way to establish equivalency is to require the source to comply with limitations or conditions that are consistent with the NEHSAP requirement except where there were compelling engineering reasons to do otherwise. While the team found the NESHAP requirements to be appropriate, the team was concerned that the NESHAP requirements do not always match exactly the rules or conditions needed by the SCAQMD to ensure compliance with technologies more effective than NESHAP.

For example, the SCAQMD and NESHAP both require high efficiency particulate filtration systems to control inorganic particulate HAP emissions from certain aerospace operations (depainting). Sources complying with the SCAQMD requirements have installed HEPA filters whereas the NESHAP requires filters that achieve effective fine particulate capture. While these two requirements are equivalent where the HEPA filters achieve the NESHAP limits, the work practices required by the SCAQMD to ensure proper operation and maintenance are different (and potentially more effective) than the work practice required by the NESHAP. Differences like this, complicate the equivalency determination.

The team agreed that a simple and expeditious way to resolve these type of situations is needed for effective program implementation by the SCAQMD, CARB and EPA. As a part of the agreement concerning these kinds of differences, the team agreed that a mutually useful process should be developed that can ensure timely, yet well understood decisions, for the exceptions or compelling reasons to differ from the NESHAP requirements.

In some situations, the SCAQMD or CARB has developed an effective alternative work practice or other requirement that can not be directly compared to the NESHAP requirement. For many of these situations, the team found that a minor rule or permit change was appropriate so that the alternative could be used. However, for some of the situations, the team studied the alternative and determined that, under certain conditions, the alternative was an adequate substitute for the NESHAP requirement.

For example, the SCAQMD rules and permits have required secondary lead operations to comply with operation and building ventilation requirements. The NESHAP requires compliance with face velocity requirements for operations unless the entire building is ventilated in a manner to ensure lead-bearing materials are captured as indicated by the pressure in the building being lower than ambient pressure. After comparing the requirements for ventilation of specific operations, the team concluded that they could rely on requiring the source to comply with a building pressure drop of 0.02 mm Hg at each opening to determine equivalency and not to evaluate the specific face velocity requirements.

A second example of a situation where the district and NESHAP requirements are not easily compared is in the area of roadway sweeping. The NESHAP requires roadways to be swept twice daily. The SCAQMD requires the roadways to be swept at a frequency (three time per week at the facility inspected) determined by fence-line ambient lead monitoring. However, the SCAQMD further require, the secondary lead operations have totally enclosed all lead-bearing operations. This level of performance is not required by the NESHAP standard. As a part of the SCAQMD compliance activities for these sources, inspections occur annually (or more often). These inspection along with the results of the ambient monitor are key to ensuring roadway areas are kept clean. During the inspection, the team noted that the only place lead-bearing material can get onto the roadway is by vehicle traffic from within the totally enclosed building.

The team considered whether the SCAQMD approach could be considered an equivalent substitute for the NESHAP requirement. The team concluded that if (and when) the current conditions are required via a federally enforceable condition, the SCAQMD commits to at least annual inspections of lead NESHAP sources, and an appropriate vehicle wash system required, then the substitution could be considered equivalent. In reaching this position, the team discussed the need for oversight or rule effectiveness studies to verify whether the team's position was correct and to require changes if the team's position is found to be incorrect.

Areas of uncertainty

The team found two areas of comparison where the end result of the comparison appears equivalent but where there remains some uncertainty about the exactness of the determination. Accordingly, the team recommends specific conditions to ensure the equivalency and, with these conditions, views the requirements as equivalent. The discussion below outlines the positions of the SCAQMD and CARB (CA Position) and the EPA Regional and headquarters (EPA Position) and then outlines the recommendation of the team.

Issue Aero/Wood/Global EL 1: The wood furniture and aerospace NESHAPs require operators to develop and follow inspection and maintenance procedures for equipment used to transfer coatings, adhesives, or solvents. The ARB and SCAQMD question these requirements based on the view that operators will fix leaking equipment without regulatory requirements. EPA learned in the rule development process that this is not necessarily true, especially where leaks are difficult to detect without careful leak detection procedures.

<u>EPA Position</u>:

- Inspection and maintenance is good air pollution control practice.
- Without some substitute requirements, the environmental protection provided by the SCAQMD substitute requirements does not fulfill the protection provided by the NESHAP.

- Perhaps we could agree with a never-to-be exceeded limit (no leaks are allowed and when a leak is detected the equipment must be taken out of service immediately).
- Uncertainty exists in determining the degree of environmental protection provided by either regulatory approach.

CA Position:

- Operators fix leaks on their own; permit conditions are not needed.
- These requirements are vague and unenforceable.
- They do not reduce emissions significantly and cannot be quantified.
- Perhaps, a never-to-be exceeded limit (no leaks are allowed and when a leak is detected the equipment must be taken out of service immediately).
- Uncertainty exists in determining the degree of environmental protection provided by the NESHAP approach.

Recommendation:

- Require a never-to-be exceeded limit as an equivalent substitute. (No leaks are allowed. When a leak is detected the equipment must be taken out of service immediately.)
- Uncertainty exists in determining the degree of environmental protection provided by either regulatory approach.
- A rule effectiveness study could be used to evaluate the recommended approach to ensure it essentially eliminates leaking equipment.

Issue Lead EL 1: The secondary lead NESHAP requires certain roadways at affected sources to be swept twice per day. The SCAQMD rule 1420(e)(4)(B) requires such roadways to be swept at least once per week. Based on elevated ambient concentrations of lead around affected sources, SCAQMD has required roadway sweeping three times per week.

EPA Position:

- The requirement to sweep roadways was established to capture fugitive lead emissions that leak from operations such as battery breaking areas.
- The NESHAP identified periodic sweeping of these roadways as a method for reducing lead emission, and based on discussions in the rulemaking EPA required a frequency of twice per day.
- The operation inspected has controls for battery breaking and other areas beyond what is required by the NESHAP and these requirements may mitigate the fugitive emissions.

- Ambient measurements do not directly prevent emissions from unswept roadways at lead facilities but are useful in identifying whether additional seeping might be needed.
- The only operation where lead-bearing materials can come from at the inspected facility is associated with vehicles carrying raw materials into and out of the enclosed facility (thereby depositing lead-bearing materials on to the roadway).

CA Position:

- The SCAQMD requirements is based on data from the ambient air monitoring network around the facility and designed to ensure the public is protected from exposure to lead emissions.
- Control beyond what is required through SCAQMD is not needed.
- The SCAQMD conducts frequent inspections to ensure proper performance by the operator.
- We agree with the forth and fifth bullet under EPA Position.

Recommendation:

- While there is uncertainty, the team agrees that if certain conditions are required permanently then the substitute requirements should be considered equivalent.
- The substitute requirements include: at least three roadway sweepings per week, an ambient monitoring system to detect fugitive lead dusts and increase roadway sweeping as needed, totally enclosed lead emitting operations, and vehicle wash down at each entrance/exit for the totally enclosed lead-bearing operations building.
- SCAQMD agrees to at least annually inspect and ARB agrees to perform a rule effectiveness study for this substitute rule before the permit is reviewed for its first 5-year reopening.

Areas of disagreement

There were several areas where the team was unable to agree on how to address a particular requirement in the NESHAP. The disagreements centered on differences of opinion on the equivalency of a substitute requirement or on the necessity of a particular NESHAP requirement. Several of the issues affected all NESHAP and are identified as "Global" issues. The following section identifies the issue concerning emission limitations (EL) and presents EPA's position followed by the position of the ARB and SCAQMD staff (CA Position). It might be worth noting that discussions had been occurring on the chromium electroplating NESHAP for over two years and that they may (or may not) be considered productive; the team hopes that the recommendations presented in this report can complete the discussions on that NESHAP. The team offers recommendations or options depending on the degree of consensus for the issue.

Issue Global EL 1: California believes that the breakdown requirements in district rules are equivalent to, and can globally replace, the malfunction provisions in the NESHAP standards.

EPA Position:

- The breakdown and malfunction approaches are "darn close" although important differences may exist.
- It is key to ensure that any event EPA does not consider a malfunction is not considered a breakdown under a District rule.
- With respect to SCAQMD's breakdown rule, we did not see the specific language indicating that the breakdown must be an infrequent event; a careful comparison is needed on a conceptual level and then in detail before equivalency can be determined.
- EPA's malfunction plan requirement is a proactive approach while the California approach is more of a deterrent approach, however they both seem to achieve the same intent.
- We have some concern about the variance provision in the breakdown rules. EPA has traditionally opposed variances.
- The May 1997 chrome electroplating equivalency submittal that presents an analysis of breakdown versus malfunction provisions is not persuasive to EPA.
- We think an analysis is needed to see if we are at the point of saying that the breakdown approach is equivalent to the malfunction/plan approach or to identify acceptable revisions to make the breakdown approach equivalent.

CA Position:

- We believe our breakdown approach is equivalent to EPA's malfunction approach. We have provided a comparison of breakdown requirements versus malfunction requirements as part of our May 1997 chrome electroplating equivalency submittal.
- We believe that the intent of a malfunction plan is achieved by the requirement that the source provide a written report discussing the cause of the breakdown, what actions were taken to minimize emissions during the breakdown, and what actions will be taken in the to prevent similar breakdowns in the future.
- We believe that the breakdown variance provision does not allow the source any additional latitude beyond what is allowed by the NESHAP malfunction provision. The breakdown variance hearing provides a third party determination of the appropriateness of allowing continued operation under a breakdown condition. The NESHAP requirement similarly allows the source to continue operation during a malfunction period provided emissions are minimized and good operating practices are used.

Recommendation:

Complete a paper currently being drafted by EPA as a California-EPA paper.

Issue Global EL 2: The NESHAPs subject new and reconstructed sources to new source NESHAP. District rules generally subject new and modified source to the same requirements. California is seeking to globally replace the term reconstruction with the term modification and use the current districts current definition of modification.

EPA Position:

- The Clean Air Act requires all existing affected sources that reconstruct to comply with the new source NESHAP requirements.
- We believe that the current definition of modification in California could result in an exact replacement of equipment that has a capital cost in excess of 50% of the capital cost of the facility not being considered a modification.
- It may be possible to have a substitute requirement based on the California modification rules yet in effect brings in the sources that would be covered by the NESHAP reconstruction provisions.

CA Position:

- We believe using the term modification and associated definition is preferable to creating a additional universe of source. To address EPA's concern, the definition of modification could be amended to include language making it clear that exact replacements that exceed 50% of the facility cost will be considered modifications.

Recommendation:

Work with stakeholders and determine if an acceptable substitute can be found or developed.

Gasoline Distribution

Issue Gasoline Distribution EL 1: NESHAP requires compliance by December 15, 1997 whereas the SCAQMD rule 462 requires compliance by February 1, 1998 with the same emission limitation (10 mg/l). Thus, there is a "paper" difference of 49 days between the NESHAP and the substitute rule. On the other hand, the NESHAP allows an operator until June 15, 1998 to demonstrate through performance testing that the emission limit has been achieved.

EPA Position:

- Compliance is required by December 15, 1997.
- All hardware will likely be installed and operating well before the December compliance date whether the operator is trying to comply with the NESHAP or Rule 462; thus, environmentally, the requirements are essentially the same.
- The difference, in practice, is when must the operator perform the compliance test.
- Some operators might claim that performance test occurring before June 15, 1998 cannot be used for determining compliance with the NESHAP; we do not see it that way.
- Accordingly, the compliance date/performance test date in rule 462 can be substituted for the compliance date and performance test requirements of the NESHAP although Region IX does not agree with the judgement that the SCAQMD rule's February 1, 1998 compliance date is equivalent to the federal rule's December 15, 1997 compliance date. Region IX believes that facilities complying with the SCAQMD rule [which requires facilities to comply with a 35 mg/l limit during the time gap-see SCAQMD Rule 462(d)(1)(D)], could emit greater emissions during the 49 day gap than it they were complying with the federal rule.

CA Position:

- SCAQMD requires an operator conducted performance test by February 1, 1998.
- Many sources already comply with the emission limit.
- We may need a protocol to review and approve appropriate pre-existing performance tests.
- These requirements are equivalent in practice.

Options:

Option 1 - Determine that the compliance dates can be substituted, although EPA may use any available data to determine compliance with the NESHAP after December 15, 1997. This means that if an operator demonstrates compliance by 2/1/97 with the 10 mg/l standard, it is presumed that compliance has occurred since 12/15/97. On the other hand, if compliance is not demonstrated by 2/1/97 with the 10 mg/l standard, then no such presumption exists. Also, we need to set up a protocol similar to that developed for the chromium electroplating NESHAP.

Option 2 - Determine the requirements are close enough to determine they are equivalent. We also need to set up a protocol similar to that developed for the chromium electroplating NESHAP.

Option 3 - Do not address this issue and accept both compliance dates and findings associated with either as independent decisions.

Wood Furniture

Issue Wood EL 1: The NESHAP standard requires source to prepare work practice implementation plans [WPIP] and maintain records showing that the actions identified in the WPIP are followed at all times. California believes that the underlying work practice standards need to be identified in the permit. However, California does not support the generic requirement for WPIP for sources in California. Instead, California favors allowing the district to require WPIP where they are necessary based on non compliance. Further, California supports recordkeeping to demonstrate compliance with the underlying requirement, but does not believe it necessary or reasonable to require records associated with fulfilling the plan.

EPA Position:

- WPIPs ensure that operators consider how they will comply with the underlying work practice requirements. While the WPIP is not part of the NESHAP, it is an important management tool for implementation of NESHAP.
- The WPIP requirement was agreed upon as an appropriate requirement as part of the negotiated rulemaking for the wood furniture NESHAP.
- The WPIP becomes a federally enforceable document and records need to be maintained to ensure that all of the provision in the WPIP are being implemented.
- We should be able to find substitute requirements in California based on the many years operators in California have been subjected to similar work practice requirements.

CA Position:

- Sources in California have been subject to requirement similar to the NESHAP standards for many years as a result of district VOC requirements. Because of this, we believe that globally requiring everyone to prepare a WPIP represents an unnecessary regulatory burden for California industry and regulatory agencies.
- We strongly disagree with the position that the WPIP becomes a federally enforceable document. The underlying work practice standard is the federally enforceable requirement, not the plan the source has for meeting this requirement.

Possible Options Discussed by the Team:

Option 1 - Find that the intent of the provision is addressed in California because: (1) sources and the districts in California have many years of experience implement NESHAP-level requirements, (2) districts have the ability to require implementation plans if they believe they are needed, (3) districts have well-established inspection programs, (4) ARB has a well-established oversight and audit program. This may be considered a rule substitution without specifically referring to the substituting requirements.

Option 2 - The district or ARB could develop a form that the source could fill out at the time of the initial compliance inspection that would serve as the WPIP. This may be considered an explicit substitution.

Issue Wood EL 2: The NESHAP standard requires sources to develop an operator training program, requires semi-annual recertification, and requires them to maintain records showing that the operator training program plan requirements are met. California believes that factors exist in California that make this requirement unnecessary.

EPA Position:

- EPA strongly does not agree that nullifying NESHAP is appropriate in the delegation process under section 112(l) or, for that matter, in an effort to determine equivalency of two sets of control technology requirements; if California requirements are not needed for some specific reasons, then those reasons should form the basis of a rule substitution.
- Providing operator training will ensure, for example, that equipment is operated and wastes handled in a manner as to minimize emissions. This NESHAP requires some control measures beyond what has been required in California and accordingly training of workers in these requirements, at least, is important.
- This requirement was agreed upon as part of the negotiated rulemaking for the wood furniture NESHAP and we believe that California must provide a substitute requirement for equivalency. A "comic" book distributed with appropriate certifications may provide an equivalent substitution.
- According to the preamble to the proposed rule, one of the main purposes of the requirement was address concerns about the use of conventional spray equipment. Also, the training would explain what workers must do to comply with waste minimization requirements.

CA Position:

- Sources are required to use low VOC-VHAP coatings and high efficiency spray application equipment. We believe these requirements are sufficient to minimize emissions.
- District rules do not allow the use of conventional spray equipment.
- Operators in California are familiar with low VOC coatings and high efficiency spray equipment; district VOC rules have required the use of low VOC coating and high efficiency spray equipment [HVLP] for over 10 years.
- Districts in California generally establish by permit condition facility caps on the mass of VOC emitted. These requirement serve as a deterrent to wasteful application of coatings.

- California sources are required to comply with the requirements of the AB 2588 program and district new source review programs. This programs serve as an incentive to minimize emission of HAPs and VOCs.
- SCAQMD has an emissions-based fee billing. This serves as an incentive to minimize emissions.

Possible Options Discussed by the Team:

Option 1 - Find that the intent of the provision is addressed in California because: (1) sources and the districts in California have many years of experience implement NESHAP-level requirements, (2) districts have the ability to require implementation plans if they believe they are needed, (3) districts have well established inspection programs, (4) ARB has a well establish oversight and audit program.

Option 2 - The ARB could develop, and the districts could distribute, operator training material in a "comic book" format including appropriate certifications.

Option 3 - Require implementation of the provision as outlined in the NESHAP.

Issue Wood EL 3: The NESHAP contains a cleaning and washoff solvent accounting provision that requires tracking of solvent usage and requires detailed records of each piece that was cleaned and why. California supports the solvent usage tracking portion of the provision but disagrees with the requirement to record each piece cleaned and why it was cleaned.

EPA Position:

- EPA strongly does not agree that nullifying NESHAP is appropriate in the delegation process under Section 112(l) or, for that matter, in an effort to determine equivalency of two sets of control technology requirements; if California requirements are not needed for some specific reasons then those reasons should form the basis of a rule substitution.
- This requirement is based on the principle of pollution prevention. Rather than limiting the volume of cleaning solvents used, the NESHAP requires sources to keep track of each piece cleaned and to identify reasons for the needed cleaning. This should result in a decrease in the amount of cleaning done and therefore preventing the pollution from solvent cleaning operations.
- This requirement was agreed upon as part of the negotiated rulemaking for the wood furniture NESHAP and we believe that California must provide a substitute requirement for equivalency.

CA Position:

- Records concerning each piece cleaned and why are not needed to support the underlying emissions-related requirement for cleaning and washoff solvents. The only emissions related restriction on cleaning and wash off solvents in the NESHAP is the prohibition from containing specific compounds listed in Table 4. We support recordkeeping to determine the amount of solvents used and the HAP content of the solvents to ensure no Table 4 compounds are used.
- Assuming the intent of the requirement was to minimize the public health impact of unnecessary use of solvents, we believe that factors in place in California are better able to accomplish this intent. These factors would include AB 2588 requirements for sources to notify the public if risks exceed 10 in a million and to prepare risk reduction plans if risks exceed 100 in a million, toxic and criteria new source review requirements which result in facility wide emission caps, periodic inspections by district staff, risk reduction information provided via SB 1731, compliance assistance activities, and fees based on magnitude of emissions.

Possible Options Discussed by the Team:

Option 1 - Find that the intent of the provision is addressed in California because of programs like AB 2588, district new source review, and compliance assistance efforts.

Option 2 - Require implementation of the provision as outlined in the NESHAP.

Issue Wood EL 4: The NESHAP requires that sources prepare a Formulation Assessment Plan to identify any significant increases in the use of HAP containing materials over a 1994 base year. California believes that this requirements is addressed by requirements that currently exist under the AB 2588 program.

EPA Position:

- EPA strongly does not agree that nullifying NESHAP is appropriate in the delegation process under Section 112(l) or for that matter in an effort to determine equivalency of two sets of control technology requirements; if California requirements are not needed for some specific reasons then those reasons should form the basis of a rule substitution.
- This requirement was agreed upon as part of the negotiated rulemaking for the wood furniture NESHAP and we believe that California must provide a substitute requirement for equivalency.

- The formulation assessment plan was developed to address the desire of some members of the regulatory negotiation committee to prohibit certain HAPs in finishing materials, to cap the emissions of certain HAPs, and to help ensure that the averaging approach allowed under the rule did not circumvent the goals of State air toxic programs.
- Given that operators in California are subject to AB 2588, the requirements of this aspect of the NESHAP seem to be fulfilled if the source is required to track their use of specific HAPs under the NESHAP.

CA Position:

- Sources are required to maintain records of coating usage and VOC/HAP information.
- The AB 2588 program requires sources with risks greater than 1 in a million to provide and update their emission inventory if emissions increase more than 10 percent. We believe that requirements under the AB 2588 program are equivalent to the NESHAP requirements. (If the baseline levels are exceeded by more than 15%, the source must provide an explanation to the permitting authority that documents the reason for exceedance of the baseline level.)
- Significant changes in chemical compositions of coatings used at a facility can trigger toxic new source review under SCAQMD rule 1402.
- Districts in California generally establish, by permit conditions, facility caps on the mass of VOC emitted.

Possible Options Discussed by the Team:

Option 1 - Find that the intent of the provision is addressed in California because: (1) sources are subject to AB 2588 requirements, (2) districts have the ability to establish facilities emission caps, and (3) districts can address significant changes through new and modified source review requirements like SCAQMD 1401 and 1402.

Option 2 - Require to source operator to show that the NESHAP requirements are satisfied by the operator complying with AB 2588 or other district requirements, including appropriate recordkeeping.

Option 3 - Require implementation of the provision as outlined in the NESHAP.

Chrome

Issue Chrome EL 1: The Chrome NESHAP contains a work practice standard that requires that fresh make-up water be added to the top of a scrubber. Some existing sources in California that are in compliance with the chrome emission limits add make-up water to the sump.

EPA Position:

- EPA strongly does not agree that nullifying NESHAP is appropriate in the delegation process under Section 112(l) or for that matter in an effort to determine equivalency of two sets of control technology requirements; if California requirements are not needed for some specific reasons then those reasons should form the basis of a rule substitution.
- This requirement ensures that chromium emissions are reduced as much as reasonably possible through proper design and operations. The Background Information Document [BID] provides information concerning tests conducted at a facility supporting that additional emission reductions are likely if this work practice standard is implemented.
- Sources must meet the work practice requirement even if they can show that they comply with the applicable emission limitation.
- We would consider substitution requirements in cases where "polishing units" following the scrubber are required which would provide equivalent emission reductions to what is required by the NESHAP. A HEPA filter would qualify as a polishing unit.

CA Position:

- For existing sources, complying with the applicable emission limits should be sufficient demonstration of equivalency and they should not be required to retrofit their scrubber to top-fill.
- The top-fill work practice standard represents a "best achieved in practice" standard and as such would represent new source NESHAP and not existing source NESHAP. Existing source NESHAP represents the control technology represented by the best performing 12 percent. There is not an existing source NESHAP analysis in the BID document for this requirement.
- The work practice standard is based on test at a single facility. No analysis is presented in the BID as to the cost effectiveness of this requirement for existing facilities that would need to retrofit.
- Numerous chrome electroplaters in California add the makeup water to the sump. However, most have additional emission or process controls. The single source we found that added makeup water to the sump and had no additional emission or process controls, was found have emission 100 times less than allowed by the NESHAP.

Possible Options Discussed by the Team:

Option 1 - Existing California requirements are sufficient for an equivalency determination for existing sources (that is, do not require retrofit for existing sources) but require NESHAP work practice for new sources (where retrofit is not an issue).

Option 2 - Consider the California requirements sufficient for an equivalency determination in cases where "polishing units" following the scrubber are required (as they would provide equivalent emission reductions to what is required by the NESHAP). A HEPA filter would qualify as a polishing unit.

4. *MONITORING, RECORDKEEPING, AND REPORTING COMPARISONS*

As outlined earlier, the team reviewed SCAQMD and CARB regulatory and permit requirements (that is, substitute requirements) and the relevant NESHAP and General Provision requirements. Based on this review and the field inspections, the team produced a table for each MACT standard to document the comparison between substitute and NESHAP requirements. The comparison tables also served the purpose of outlining areas of agreement, disagreement, and uncertainty in determining whether the SCAQMD and CARB requirements are equivalent to the applicable NESHAP requirements. These tables can be found in Appendix C. The final resolution of areas of uncertainty or disagreement can be found in Chapter 5.

The team found four possible outcomes in determining equivalency. These are: equivalent, equivalent if and when a certain action is taken (or not equivalent until a certain action is taken), uncertain, or disagreement. The following sections discuss of the team's findings concerning monitoring, recordkeeping, and reporting (MRR) requirements.

Areas of agreement

As can be seen in Figure 2, there are several areas of agreement regarding monitoring, recordkeeping and reporting (MRR). Among them are the 5 year record retention period, annual compliance reports, breakdown reports to substitute for quarterly reports, and initial compliance certifications/ notifications.

The team agreed that SCAQMD Rule 3004(a)(4)(e) requires 5 year record retention for major sources, and all these major sources will have to get Title V permits which also requires 5 year record retention. The major source NESHAP requirements also affect area sources in that area sources need to keep records assuring their area source status. For these area sources, California has proposed to keep the area source fee billing records, which documents their emissions, for the additional 2 or 3 years to make a total of 5 years so that there will be records available for these area sources. Other

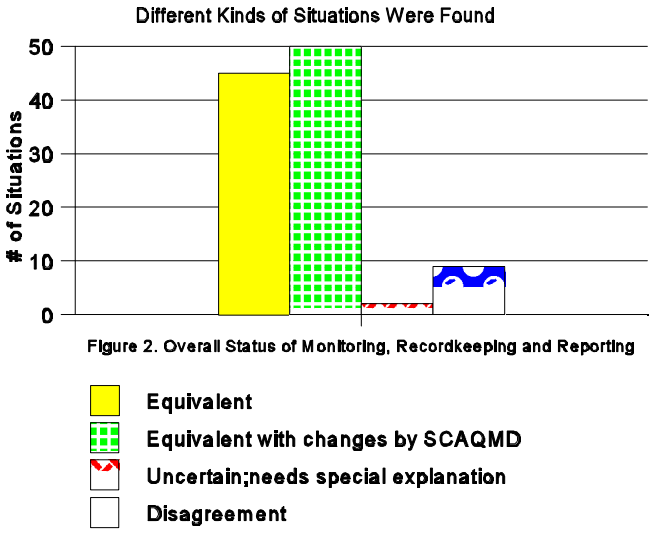


Figure 2. Overall Status of Monitoring, Recordkeeping and Reporting

NESHAP requirements, like the chrome plating NESHAP, directly regulate area sources and those rules must be modified, or this issue addressed, to ensure that these sources keep all the requisite records documenting their ongoing compliance for 5 years.

Similarly, the NESHAP requirement for major source to submit annual compliance reports is also required by Title V. Therefore, although the California rules do not require these reports, this issue is moot. They will have to be submitted anyway because of Title V. The same is true of the 6 month reports required by Section 504(a) of the Act, however, California has proposed that EPA consider substituting inspector reports of some kind for the source's obligation to submit these 6 month reports. See below.

NESHAPs require quarterly reports where there have been excess emissions for a year after the excesses. We have agreed that the district's breakdown reports, which are very prompt, telephone and written, and most are investigated by a site visit, satisfy the goal of the quarterly reports.

Then, too, we have agreed that since the SCAQMD does not issue Title V or other permits unless the source is in compliance, as confirmed by an initial compliance inspection and test results, the initial compliance report is not necessary, since it would be redundant to the foregoing measures. Additional assurance that the source is in compliance is that many of these source categories have been under local regulation for many years, and previous inspections have confirmed their compliance status. This satisfies the intention behind the initial compliance report. The federal initial notification likewise is satisfied by the Title V permit application, if this application is submitted before the initial notification is due, or if the source has a local permit that indicates that they are or are not likely to be subject to a particular NESHAP. The SCAQMD usually knows who the sources are and where they do know, they do not need to be notified again.

On testing generally, if there have been pre-existing performance tests, which will be true for nearly all these sources, these tests, if adequate, can be used to satisfy the requirements for performance tests required by the NESHAPs. However, if these older tests are not adequate, there will have to be a re-test. A protocol to determine the adequacy of the older tests was established for the chrome plating rule and something similar could be developed for the other NESHAPs.

The monitoring equipment requirements (pressure gauges, temperature probes, etc.) and the frequency of monitoring was the same or better than required by the NESHAPs for most of the sources inspected. In most cases, the monitoring equipment requirements, the frequency of monitoring, and the monitoring recordkeeping requirements were not specifically identified in the district rule, but were added to the permit during the permitting process. Overall, there seemed to be very close agreement between the NESHAP and district requirements for continuous emissions monitoring requirements, continuous parameter monitoring requirements, and the most important parameters to be periodically monitored to meet enhanced monitoring

requirements. The main issues associated with monitoring related to the ability of the district to establish alternative requirements that differed in the frequency at which a parameter needed to be monitored (see Chrome surface tension discussion below) or the frequency at which a monitored parameter must be recorded (see Chrome pressure drop discussion below and lead scrubber flow rate issue in table). We did agree that the California requirement for a non-resettable amp-hour meters is equivalent to the total operating time meters that the chrome electroplating NESHAP requires.

The aerospace and wood furniture NESHAPs require a record of leaks from spray guns and spray gun cleaning equipment. California contends that when a gun leaks, it gets fixed right away, because operators do not want to get spray all over them. Thus, the records of leaks are not needed. We all agreed that if there is a rule or permit requirement (see later discussion on permits vs. rule changes) to remove leaking equipment immediately, and to record whenever this immediate removal requirement is not complied with, then that should suffice.

We agreed that the computerized lockout system that prevents uncertified trucks from loading at gasoline distribution facilities is an excellent substitute for the recordkeeping requirements of the gasoline distribution NESHAP.

Areas of uncertainty

There are a number of areas where several options were considered, but the team is uncertain as to the best solution. Among these issues are how to ensure that the improvements agreed upon in this process become federally enforceable provisions, the use of emergency variances as part of the district breakdown process, and the substitution of district inspection reports for the source's compliance status six month reporting requirement.

Issue Global EL/MRR 1: It is not clear how and when the alternative NESHAP requirements (substitute requirements that where found equivalent or equivalent if and when a certain actions is taken) will become federally enforceable requirements.

EPA Position:

- EPA believes that where the district/state rule is deficient, or not equivalent without some sort of change, the district/state must eventually make the needed changes to their rules and requirements. SCAQMD/CARB would then submit these rules and requirements for equivalency through the subpart E process.
- Before these rules and requirements are approved through the subpart E process, EPA believes that there are potential mechanisms such as permit streamlining through which the Sacramento Protocol conclusions could be implemented.
- EPA believes that some of the conclusions made in the Sacramento Protocol such as CARB's guarantee to develop compliance manuals, to audit district programs and ensure inspection frequency could be documented in an MOU between

SCAQMD/CARB and EPA Region 9. These conclusions would eventually be included in the subpart E submittals and approved as equivalent NESHAP requirements.

CA Position:

- We believe that the only viable short term option is to incorporate the agreed upon changes by permit or permit template.
- The time required for district/state rulemaking (approximately 120 to 270 days), the time required for EPA section 63.93 equivalency approval (210 days), and the compliance date for the five NESHAPs in this study (1997 and early 1998), would mean that none of these provisions could go through the EPA recommended approach before the NESHAP compliance date.
- We do not support including, in district/state rule language, the extensive system performance and design requirements, the extensive monitoring calibration requirements, the extensive recordkeeping and reporting that are found in the NESHAP standards. We believe that these requirements can be effectively incorporated in the permitting process. We also believe that the findings of the field inspections support this approach.
- Longer term solutions to the issues raised in the process include the following options: amending district/state rules, amending the NESHAPs, amending the general provisions, delegating certain decision making to district/state, amending and expanding the subpart E regulations, and using the existing or possibly amended Title V permit streamlining process (White Paper 2).

Possible Options Discussed by the Team:

Option 1: Require district/state rule amendments and use the existing subpart E approval process to implement the alternative and substitute NESHAP requirements.

Option 2: Use White Paper 2 streamlining as an interim measure followed by amending district/state/federal rules and subpart E approval.

Option 3: Develop permit templates incorporating the equivalency provisions agreed to here and find a mechanism to make them immediately federally enforceable.

Recommendation:

The team decided that resolution of this issue was beyond to scope of the *Sacramento Protocol* and deferred resolution of this issue to EPA management and the California Section 112(l) Negotiating Team.

Issue Global EL/MRR 2: The district breakdown rules, the CARB model breakdown rule, and state law requires that a source seek an emergency variance if the breakdown extends beyond a set time period (generally 24 hours).

EPA Position:

- EPA maintains that variances are traditionally anathema to enforcers.
- In California, variances allow a company to continue operating in violation of rules without penalty while it takes steps to meet air requirements.
- EPA maintains that this is very close to a No Action Assurance, which for EPA can only be granted by the Assistant Administrator for Enforcement.
- EPA recommends that variances (emergency or otherwise) be granted with EPA Regional office approval, per the SCAQMD Rule 518.2 process or a reasonable variation thereof.
- This issue should be looked at more thoroughly.

CA Position:

- The team's discussion should be limited to the issues associated with the emergency variance provision in the district breakdown rules, not variances in general.
- The emergency breakdown provision prevents districts from issuing administrative variances (variance issued by the district with the quasi-judicial review).
- The breakdown variance requirements result in a more stringent approach than the NESHAP malfunction process, especially since a finding that the variance will not result in an adverse public health impact is required.

Issue Global EL/MRR 3: Can district inspection reports substitute for the source's six month compliance status report?

EPA Position:

- EPA believes that the legal and practical complications may make this too tough of an issue for us to handle in the time we have. OGC, at the staff level, has already opined that it is not legal.
- If the source is not inspected on the sixth month, the source would have to send in the report. If the inspector appears one month later, does that count for anything? Is it six months from that inspection, or six months from the last report that the next report or inspection is due?
- It might be a nice burden reduction for sources and a good incentive to ensure that inspections happen, if we had extra time, but we do not and it is not essential to the 112(l) approval process.

CA Position:

- A third party determination of compliance status would be a reasonable substitute for a six-month report. The source would still be required to submit a source-generated compliance report annually.

Areas of disagreement

There were several areas where the team was unable to agree on how to address a particular requirement in the NESHAP. The disagreements centered on differences of opinion on the equivalency of a substitute requirement or on the necessity of a particular NESHAP requirement. Several of the issues affected all NESHAPs and are identified as "Global" issues. The following section identifies the issue and presents EPA's position followed by the position of the CARB and SCAQMD staff (CA Position)

Issue Global MRR 1: The NESHAP standards require that the source be responsible for obtaining/maintaining information on the VOC and HAP content of coating. This information is not readily available on MSDS or Product Safety Data sheets for many coatings. Source are having difficulties obtaining this information directly from the manufacturers. California believe that this is a national issue and needs to be addressed by a national rulemaking requiring that VOC and HAP information be provided by manufacturers and suppliers.

EPA Position:

- We believe that there may be alternative approaches that will resolve this issue, such as EPA getting commitments from coating manufacturers to supply the information.
- We believe that if we were to take the approach of a national rulemaking, we would need the support of state and local agencies and the affected industries.
- We think that a Section 114 order to 9 major manufacturers might be a first step/interim solution.

CA Position:

- We support national rulemaking.
- The Section 114 approach may be a reasonable first step, but we are concerned about the effectiveness of using this approach given the multitude of coating categories that will be subject to NESHAP requirements.

Issue Global MRR 2: Several NESHAPs require sources to comply with the manufacturer's operating, installation, calibration and maintenance specifications. EPA believes that the manufacturer's requirements should be incorporated by reference into and be part of the Title V permit to ensure that these specifications are federally enforceable. California believes that a general condition should be placed in the Title V permit (or local operating permit for area sources) indicating that the source must operate consistent with manufacturer's requirements. Further, the specific requirements do not need to be listed or attached to the permit, but the source should maintain on file and have available applicable manufacturer's requirements.

EPA Position:

- We believe that the manufacturers requirements need to be incorporated by reference into and thus be part of the permit so it is clear to everyone what the requirements are and that they are federally enforceable.
- Sometimes the equipment has no manufacturer's specifications because it has been custom designed by the source. In this situation, the specifications need to be developed and included with other manufacturers' specifications.

CA Position:

- Incorporation of all of the manufacturers requirements directly into a permit would be a daunting task with little practical benefit.
- A general requirement in a permit requiring that the source operate consistent with the manufacturer's specifications and requiring that copies of these specifications be available on site should be sufficient.

Issue Global MRR 3: Compliance plans, work practice implementation plans and malfunction or breakdown plans required by NESHAP standards should be developed and incorporated into the permit, either directly or by reference.

EPA Position:

- We believe that a rule should require that these plans be incorporated into the permit by reference so that all applicable requirements are in the permit, are federally enforceable, and can be readily found by any official and the public.

CA Position:

- We disagree with the necessity of work practice implementation plans and breakdown/malfunction plans. (See Global EL 1, Wood EL 1, Wood MRR 2)
- Compliance plans should be treated as identified in Global MRR 2.

Issue Global MRR 4: EPA believes that parameter exceedances are emissions violations, per se. California suggests that where the source is 10, 100 or 1000 times better than the standard, merely exceeding the parameter value may not result in an actual emissions violation. Where there is a closer correlation, then it should be characterized as an emission violation. EPA argues that if the parameter is exceeded that is at least a permit violation and worth $25,000/violation/day. It may not be necessary, as part of this exercise, to decide how it is characterized, i.e., permit violation only and not necessarily an emission violation or permit and emissions violation.

EPA Position:

- Parameter exceedances are emissions violations. This is enhanced monitoring.

CA Position:

- We agree that an exceedance of a parameter identified in a rule or permit is a violation.
- Exceedances of parameter may or may not result in excess emissions. It depends on the degree of correlation between the parameter and the emission limit.
- Characterizing parameter exceedances as excess emissions may result in an inaccurate picture of the public health risk associated with exceedances.

Issue Global MRR 5: Director's Discretion. EPA recommends that the district be allowed to approve alternatives only after the Region has been given data to support the proposal and ample opportunity to concur or non-concur, 120-180 days. At the end of that time, the Region would have to send some answer, no, yes, no because more information is needed and some explanation. Basically, this gives the Region the opportunity to control this discretion and ensure national consistency, while allowing the District to work up the issue and deliver the decision on their letterhead. California believes that it is appropriate to delegate certain decisions to the permitting agency. Some of these decisions should require no EPA pre-approval. Other issues are more complex and would require EPA pre-approval. California also believes that a maximum EPA review period be established depending on the type of change and the complexity of the issue.

EPA Position:

- The Regions need the opportunity to control this discretion and ensure national consistency.
- Some decisions that are simple can and will be handled more promptly than the longer time period recommended here. But it is impossible to say in advance which will be simple and which will not be.

- Regional office should have 120-180 days to concur or non-concur with a local recommendation for alternatives. If the Region failed to respond at the end of this time, a concurrence would be assumed.
- Alternative work practice standards would require federal rulemaking.

CA Position:

- Considerable expertise exists at the districts to make these decisions.
- Many decisions can easily and effectively be handle by the permitting agency (i.e., McDonnell-Douglas's request for an alternative measurement frequency for chrome electroplating).
- EPA review is appropriate for many decisions, however, the review period should vary depending on the issue. We suggest the approach outlined in the chrome electroplating equivalency regulation as a beginning point for discussion on this issue.
- It is essential that a maximum EPA review period be established, and alternatives be deemed approved if EPA does not take action within the specified review period.
- If it is EPA's position that any alternative to a work practice standard must be approved through federal rulemaking, then NESHAP requirements or the general provisions need to be revised to allow for a reasonable process for addressing work practice standards, particularly level 2 standards.

Issue Global MRR 6: Details of Reports. NESHAPs are specific about what is to be included in the several types of reports. California agrees that excess emissions as part of a breakdown should be reported, and California requires prompt reporting of the same. However, they believe that some of the information required by the NESHAP is not needed because the information is readily available or because it can be easily obtained if it is determined that the information is needed.

EPA Position:

- Include the details of the reports unless a convincing case is made to delete some provisions.

CA Position:

- Provide flexibility, especially for small businesses, to not require details that are not necessary or can be easily obtained if necessary.

Wood Furniture

Issue Wood MRR 1: The NESHAP require sources to maintain "certified product data sheets" for each coating. SCAQMD rule 109 currently requires VOC content information (SCAQMD will require HAP content information via amendments to rule 109).

EPA Position:

- Rule 109 with the HAP amendment would not be equivalent to the NESHAP requirement [63.806 (b)] because it does not require product data sheets, which are the easiest way for sources and regulators to be sure of the content.

CA Position:

- Rule 109 clearly indicated that MSDS information is an acceptable form of information on VOC content. We do not believe that there is a equivalency issue just because we do not specifically identify "certified product data sheets" as the only source of VOC/HAP information.
- The district can require a source to perform an analysis, or the district can perform an analysis on any coating if they believe that there may be a problem with the information provided on the VOC/HAP content.

Issue Wood MRR 2: The NESHAP requires a copy of the work practice implementation plan (WPIP) and all records associated with fulfilling the plan. California disagrees with the need for a WPIP (see Issue Wood EL 1) and the associated recordkeeping. California supports recordkeeping to demonstrate compliance with the underlying requirement, but does not believe it necessary or reasonable to require records associated with fulfilling the plan.

EPA Position:

- The WPIP recordkeeping requirements were agreed upon as appropriate requirements as part of the negotiated rulemaking for the wood furniture NESHAP.
- The WPIP becomes a federally enforceable document and records need to be maintained to ensure that all of the provision in the WPIP are being implemented.

CA Position:

- We disagree with the necessity of the WPIP requirement for California sources. The basis for this disagreement is outlined in Issue Wood EL 1.
- Requiring sources to maintain, and inspectors to audit, records to show that all of the steps in a source's action plan for implementing work practice requirements are followed is unnecessary and overly burdensome.

- Only those records needed to assure compliance with the specific work practice standard should be required.

Secondary Lead

Issue Lead MRR 1: The NESHAP requires the owner and operator to prepare, and operate according to, a standard operating procedures (SOP) manual [63.548]. The NESHAP provides considerable detail on the minimum requirements of the SOPs. EPA believes that all of the NESHAP requirements should be incorporated by reference into the Title V permit. California believes that the requirements of the NESHAP could be addressed by a general provision in the district rule or permit that requires development of a compliance plan consistent with the NESHAP SOP requirements. The compliance plan would be referenced in the Title V permit.

EPA Position:

- We believe that the SOP requirements need to be specifically identified in the permit and the SOP be "in" the permit, or incorporated by reference in the permit. See discussion above about specifications, plans and manuals. We may not be that far apart on this issue.

CA Position:

- Requiring compliance plans to be prepared consistent with the NESHAP SOP requirement would eliminate adding a lot of text to the district rule and the Title V permit, and at the same time meet the intent of the NESHAP requirement.
- The compliance plan should be referenced in the Title V permit but not be "in" the Title V permit unless there is a simple way to update the plans without formal permit reopening.
- There may be an opportunity to work with the Title V people to ensure that plan revisions that have no impact on emissions are considered *de minimis* revisions.

Chrome

Issue Chrome MRR 1: The Chrome Electroplating NESHAP requires that measurements of pressure drop across control devices and velocity pressure be recorded daily. California believes that recording the measurements once per week is an appropriate frequency for chrome plating sources. They further believe that the permitting agency needs to have a simple and expeditious way to increase or decrease this frequency based on compelling engineering evidence.

EPA Position:

- EPA is willing to have weekly recordings if the "Bruce Gauge" is in clear view so that it can be monitored continuously without difficulty. California objects to the plain view requirement.

CA Position:

- Based on seven years of experience implementing chrome regulations, the results of ARB rule effectiveness audits, discussions with manufacturers, discussion with industry, and the experience of district engineering and enforcement staff, we have found that a frequency of recording of once per week is an appropriate minimum requirement for this source category.
- Pressure drop does not significantly change on a daily basis unless there is a major malfunction.

Possible Compromise Proposal:

Begin with the NESHAP required frequency and have a process for allowing the permitting agency to increase or decrease the frequency based on compelling engineering evidence.

EPA Position on Compromise Proposal:

- This approach is most consistent with the NESHAP. We may have an issue with EPA and public review of changes (see discussion of Director's Discretion).

CA Position on Compromise Proposal:

- Compelling engineering evidence already exists supporting weekly versus daily recordkeeping.
- We believe that a simple, expeditious process is needed for this, and all NESHAP standards, to allow the permitting agency to increase or decrease the frequency at which a monitored parameter must be manually recorded. We strongly support including the framework for such a process in the general provision or the individual NESHAP standards. We believe that the proposed process identified in our May 1997 chrome electroplating equivalency submittal could serve as a beginning point for developing such a process.

Issue Chrome MRR 2: The NESHAP standard requires surface tension to be measured according to a "sliding frequency scale" of every 4 hours, 8 hours, and finally every 40 hours. California believes that weekly measure of surface tension is appropriate. They further believe that the permitting agency needs to have a simple and expeditious way to increase or decrease this frequency based on compelling engineering evidence.

EPA Position:

- EPA favors the sliding scale approach because it ensures that the surface tension measurement is appropriate for the given operation. If a source can demonstrate that it has already "slid up the scale" by being in compliance for the required length of time, then that source could begin monitoring every 40 hours, but should return to more frequent monitoring if exceedances occur.
- The general provisions provides a mechanism for sources to request changes in the frequency of surface tension measurement. See discussion of Director's Discretion Issue Global MRR 5.

CA Position:

- Based on seven years of experience implementing chrome regulations, the results of ARB rule effectiveness audits, discussions with manufacturers, discussion with industry, and the experience of district engineering and enforcement staff, we have found that a frequency of surface tension measurement of once per week is an appropriate minimum requirement for this source category.
- The field inspection at Boeing showed that the surface tension value for the decorative chrome plating tank was consistently around 30 dynes/cm2 (standard 45 dynes/cm2), between January and August and only a single addition of 50 ounces of surface tension agent was made during that time period. Similar results have been reported by the SCAQMD inspection staff at other facilities.
- We believe a simple, expeditious process is needed for the permitting agency to approve alternative measurement frequency based on compelling engineering evidence.

Issue Chrome MRR 3: The Chrome NESHAP requires foam blanket thickness to be measured every hour, increasing to every 8 hours after operation in compliance for the requisite period. California believes that initially requiring hourly measurement of foam blanket thickness is appropriate but there needs to be a simple and expeditious process for the permitting agency to approve an alternative measurement frequency based on compelling engineering evidence.

EPA Position:

- The NESHAPs and the general provisions provide mechanisms for sources to request for changes in, or to change pursuant to the NESHAP, the frequency of surface tension measurement.

- EPA is committed to consider polyballs in lieu of the foam blanket thickness with a visual inspection of complete coverage rather than a measurement of thickness. This polyball technology appears to be a better solution since the foam, unlike the polyballs, disappears over time and has to be replenished. If the foam is too thick, it can adversely affect the plating, providing an incentive to sources to skimp on the foam.

CA Position:

- We believe that a simple, expeditious process is needed for this, and all NESHAPs, to allow the permitting agency to increase or decrease the frequency at which a parameter is periodically monitored. We strongly support including the framework for such a process in the general provisions or in the individual NESHAP standards. We believe that the proposed process identified in our May 1997 chrome electroplating equivalency could serve as a beginning point for developing such a process.
- See Issue Global MRR 5.

5. RESOLUTION OF AREAS OF UNCERTAINTY AND DISAGREEMENT

As discussed in chapters 3 and 4, the team identified 22 areas where there was uncertainty or disagreement concerning the equivalency of a particular district/state provision with the corresponding NESHAP requirement. [Note: After reviewing and analyzing these areas plus other data developed during the rule comparison process, the team decided that two additional areas of uncertainty should be added to the five uncertainty issues already identified. These new issues are identified as "new" issues in the "Resolution" table in this chapter.] To resolve the 24 (22+2 new) areas of uncertainty and disagreement, the team identified the underlying issues and the positions of the various agencies. This information was provided to the management review team (Mr. Bucket of EPA/OECA and Mr. Morgester of ARB/CD) to discuss and resolve. The management review team engaged in discussions and conducted addition field inspections in an effort to resolve the remaining issue. The following table presents the resolution of all of the remaining issues.

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Uncertainty (Global) **Applicability, compl. dates, work practices, and MRR**	**1. Global EL/MRR 1.** **It is not clear how and when the alternative NESHAP requirements identified in this process will become federally enforceable requirements.** **See Chapter 4 pages 25 and 26 for EPA and California positions on this issue.**	**It was decided that resolution of this issue was beyond the scope of the *Sacramento Protocol* and resolution of the issue was deferred to EPA management and the California Section 112(l) Negotiating Team.**	**Issue Deferred to EPA and California Section 112(l) Negotiation Team** **Implementation issue not addressed.** ➔ How will the provisions of this table and the equivalent if/when provisions become the approved alternative NESHAP requirement for sources in California.? ➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit for area sources and a Part 70 permit for major sources. ➔ Approval of an alternative under the general provisions is another option. ➔EPA favors rule changes or permit streamlining.

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagreement (Global) **Applicability, compl. dates, & work practices**	**2. Global EL 1 and EL/MRR 2.** **California believes that the breakdown requirements in district rules are equivalent to, and can globally replace, the malfunction provisions in the MACT standards .**	**The EPA team agreed that this requirement will be met in the SCAQMD when it requires language in its breakdown rule that specifically references examining the recurrent nature of the alleged breakdown. The CA model breakdown rules has such a requirement. Prior to approving the global substitution of breakdown rules in the other districts, EPA must review these rules to ensure that they contain provisions similar to the SCAQMD rule and the ARB model rule. EPA is preparing a paper to identify the needed elements and expedite the review process. It is CA understanding that district rules that are equivalent to the ARB model breakdown rule will be approved as an equivalent alternative to EPA's malfunction provisions (including the malfunction plan element).**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit for area sources and a Part 70 permit for major sources. ➔ Approval of an alternative under the general provisions is another option.
Disagreement (Global) **Applicability, compl. dates, & work practices**	**3. Global EL 2.** **The MACT standards subject new and reconstructed sources to new source MACT. District rules generally subject new and modified source to the same requirements. California is seeking to globally replace the term "reconstruction" with the term "modification" and use the current district's definition of modification.**	**The EPA team agreed that as long as the South Coast district amends its definition of modification to include language making it clear that replacements that exceed 50% of the source cost will be considered a modification (as source is defined in the MACT), then the South Coast would have an equivalent requirement.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ What action must the District take in short term (permit fix) and long term (rule fix)? ➔ Can EPA fix via general provisions?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Uncertainty **Applicability, compl. dates, & work practices**	**4. Aero/Wood/Global EL 1.** **The wood furniture and aerospace NESHAPs require operators to develop and follow inspection and maintenance procedures for equipment used to transfer coatings, adhesives or solvents. The ARB and SCAQMD question these requirements based on the view that operators will fix leaking equipment without regulatory requirements.**	**The EPA team agreed that an equivalent substitute to the MACT provision would be a no leaks provision requiring that when a leak is found, the coating equipment must be shutdown until repaired. This provision would be implemented via a federally enforceable permit condition or rule requirement. If district finds source operating with leaking coating equipment, a violation notice will be issued.**	**Issue resolved** **Implementation issues not addressed.** → How will this provision become the approved alternative NESHAP requirement for sources in California? → For area sources with similar requirements, can federally enforceable conditions be approved and placed on district operating permit?
Uncertainty **Applicability, compl. dates, & work practices**	**5. Lead EL 1.** **The secondary lead NESHAP requires certain roadways at affected sources to be swept twice per day. The SCAQMD rule 1420(e)(4)(B) requires such roadways to be swept at least once per week. Based on elevated ambient concentrations of Pb around affected sources, SCAQMD has required roadway sweeping three times per week.**	**The EPA team agreed that South Coast substitute requirements of at least 3 roadway sweepings per week, an ambient monitoring system to detect fugitive Pb dusts, increase sweeping as needed based on ambient monitoring data, a totally enclosed Pb emitting operation, and vehicle wash down at each entrance/exit for the totally enclosed Pb-bearing operations building, was equivalent to what the MACT required.**	**Issue resolved** **Implementation issues not addressed.** → How will this provision become the approved alternative NESHAP requirement for sources in California.? → CA favors incorporating reference to state law or substantive provision of state law into Part 70 permit. Needs operating permit conditions.

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagreement **Applicability, compl. dates, & work practices**	**6. Gasoline Distribution EL 1.** **The Gasoline Distribution NESHAP requires compliance by December 15, 1997 whereas the SCAQMD rule 462 requires compliance by February 1, 1998 with the same emission limitation (*10*mg/*l*). Thus, there is a "paper" difference of 49 days between the NESHAP and the substitute rule. On the other hand, the NESHAP allows an operator until June 15, 1998 to demonstrate through performance testing that the emission limits has been achieved.**	**The EPA team agreed that equivalent emission reductions are essentially achieved even though compliance dates are different. However, EPA may use any available data to determine compliance with the NESHAP after December 15, 1997. This means that if an operator demonstrates compliance by 2/1/98 with the 10mg/l standard, it is presumed that compliance has occurred since 12/15/97. On the other hand, if compliance is not demonstrated by 2/1/98 with the 10mg/l standard, then no such presumption exists.**	**Issue resolved**
Uncertainty **Applicability, compl. dates, & work practices**	**7. Gasoline Distribution New.** **EPA's Charlie Garlow stated Mr. Bucket's concern that in spite of the card lock system at bulk-loading terminals, a rogue cargo tank driver could use someone else's loading card to load a cargo tank that wasn't certified. Mr. Morgester explained that State law puts the burden of compliance on the driver and the facility. For example, Section 41962(g) of State's H&SC says: "No person shall operate, or allow the operation of, a tank vehicle transporting gasoline and required to have a vapor recovery system, unless the system thereon has been certified by the state board and is installed and maintained in compliance with the state board's requirements for certification."**	**The EPA team and ARB agreed that the issue is resolved because of the provisions of State law which make both the driver and the facility liable. In addition, the provisions of State law could be incorporated into the CA SIP, if necessary, to make the provisions federally enforceable.**	**Issue resolved** **Implementation issues not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ CA favors incorporating reference to state law or substantive provision of state law into Part 70 permit.

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagreement (Global) **Applicability, compl. dates, & work practices disagree-ments**	**8. Wood EL 1.** **The MACT standard requires source to prepare work practice implementation plans [WPIP] and maintain records showing that the actions identified in the WPIP are followed at all times. CA believes that the underlying work practice standards need to be identified in the permit. However, CA does not support the generic requirement for WPIP for sources in California. Instead, CA favors allowing the district to require WPIP where they are necessary based on non compliance. Further CA supports recordkeeping to demonstrate compliance with the underlying requirement, but does not believe it necessary or reasonable to require records associated with fulfilling the plan.**	**CA believes the WPIP are overly-burdensome and generally not necessary for California districts and industry. The EPA team disagrees. CA offered as a substitute for the plan and plan record requirement the following commitments or facts in lieu of a WPIP: semi-annual inspections of major wood facilities, the fact that SCAQMD has been regulating these sources with state of the art controls for many years, and a commitment to require a WPIP if inspections indicate that such plan is needed.** **The EPA team agreed to the above package is essentially equivalent .**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ Is there a need for an MOU or other mechanism for formalizing the commitments?
Disagreement (Global) **Applicability, compl. dates, & work practices**	**9. Wood EL 2.** **The MACT standard requires sources to develop an operator training program, require semi-annual recertification, and require them to maintain records showing that the operator training program plan requirements are met. California believes that factors exist in California that make this requirement unnecessary.**	**CA agreed to produce a training manual that was user friendly and would achieve the intent of EPA's training requirement. If the South Coast already had such a manual, it could be used. If not, the ARB would produce such a training manual and it would be handed out during semi-annual inspections by the South Coast. For a source's semi-annual recertification of source training, it seems reasonable that a source could certify that its affected operators had reviewed the manual. If the district determines that more formal training is needed to improve operator performance, then SCAQMD would require such training.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ Is there a need for an MOU or other mechanism for formalizing the commitments?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagreement (Global) **Applicability, compl. dates, & work practices**	**10. Wood EL 3.** **The MACT contains a cleaning and washoff solvent accounting provision that requires tracking of solvent usage and requires detailed records of each piece that was cleaned and why. California supports the solvent usage tracking portion of the provision but disagrees with the requirement to record each piece cleaned and why it was cleaned.**	**CA does not believe that the provision requiring the recording of each piece of wood product that was cleaned and why is necessary for CA sources. The EPA team does not agree; this requirement is based on pollution prevention and causes real reductions in emissions although it is difficult to quantify the exact amount. CA position is that pollution prevention options at least as effective are already in place in CA. These include the required use of HVLP spray guns in CA, solvent tracking requirements, emission fees based on amount of VOC and toxic pollutants emitted, and** **AB 2588 requirement to notify and prepare risk reduction plans. These alternative pollution prevention approaches represent a substitute package that should be an acceptable substitute for the washoff solvent accounting provision requirement.** **The EPA team agreed to the above substitutions.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will the current NESHAP requirement for records on clean up usage be waived for CA sources? ➔ Is there a need for an MOU or other mechanism for formalizing this finding?
Disagreement (Global) **Applicability, compl. dates, & work practices**	**11. Wood EL 4.** **The MACT requires that a source prepare a Formulation Assessment Plan to identify any significant increases in the use of HAP containing materials over a 1994 base year. California believes that this requirement is addressed by requirements that currently exist under the AB 2588 program.**	**The EPA team agreed that this would be addressed in California by:** **(1) districts having the ability to establish facility emission caps, (2) sources being subject to AB 2588 requirements, (3) CA adding permit conditions that if a source goes over 10% of AB 2588 base, the source's emissions inventory would be updated, (4) the operator confirming that they have been and are in compliance with AB2588, and (5) districts addressing significant changes through new and modified source review requirements like SCAQMD 1401 and 1402.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ Is there a need for an MOU or other mechanism for formalizing the commitments?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagreement (Global) **Applicability, compl. dates, & work practices**	**12. Chrome EL 1.** **The Chrome MACT contains a work practice standard that requires that fresh make-up water be added to the top of a scrubber [based on one test]. Some existing sources in California that are in compliance with the chrome emission limits add make-up water to the sump.**	**Mr. Bucket & Mr. Morgester inspected a scrubber at a chrome anodizer in the field (Monday, 6 Oct 97) and learned the following:** **o First, introducing make-up water at top amounts to only 1 to 2 % of total recirculation water used for scrubbing (8 gpm vs 800 gpm).** **o Second, simply introducing make-up water at the top of scrubber will not be effective unless that water is distributed uniformly. Also, making this kind of mechanical plumbing change at a scrubber would increase the retrofit cost of the scrubber.** **o The cost of plumbing the make-up water to the top is minimal.** **EPA's review found that vertical or horizontal packed bed scrubber (PBS) with continuous recirculation (as seen by B&M) can add make-up water to sump; horizontal PBS without continuous recirculation (batch addition of make up water) need to add make-up water to the top of packed bed.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ What action will EPA take to clarify this requirement?
Uncertainty: (Global) **MRR Issues**	**13. Global MRR 1.** **The MACT standards require that the source be responsible for obtaining/maintaining information on the VOC and HAP content of coating. This information is not readily available on MSDS or Product Safety Data sheets for many coatings. Sources are having difficulties obtaining this information directly from the manufacturers. California believes that this is a national issue and needs to be addressed by a national rulemaking requiring that VOC and HAP information be provided by manufacturers and suppliers.**	**The EPA team agreed that the issue was a national one. EPA agreed to introduce this issue at the Conference on the New Federal Toxic Regulations on October 7, 1997 in the City of Industry, CA to make attending coating makers aware informally of the issue. EPA also intends to follow up this conference with discussions with coating manufacturers, again on an informal basis, to convince them of the need to supply the needed toxic information.**	**Issue resolved** **Implementation issue not addressed.** ➔ What is the source's liability pending EPA's resolution of this issue?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Uncertainty: (Global) **MRR Issues**	**14. Global MRR 2.** **Several MACTs require sources to comply with the manufacturer's operating, installation, calibration and maintenance specifications. The EPA team believes that the manufacturer's requirements should be incorporated by reference into and be part of the Title V permit to ensure that these specs are federally enforceable. CA believes that a general condition should be placed in the Title V permit indicating that the source must operate consistent with manufacturer's requirements but the specific requirements do not need to be listed or attached to the permit. CA believes that the source should maintain on file and have available applicable manufacturer's requirements.**	**The EPA team agreed to a general, federally enforceable, permit condition requiring that the source operate to comply with the manufacturer's operating, installation, calibration and maintenance specifications; and requiring that copies of these specifications be available on site. The permit condition(s) should further stipulate that any changes made by the operator to the maintenance specifications should be documented in an addendum to the specifications and signed by the appropriately delegated plant personnel . Further, the operator may not make changes to manufacturer's specifications if they increase emissions.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit for area sources and a Part 70 permit for major sources. ➔ Can this issue be addressed globally by EPA under the general provisions or through implementation guidance?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagree-ment: (Global) **MRR Issues**	**15. Global MRR 3.** **Standard operating procedures (SOP) manuals, work practice implementation plans and malfunction or breakdown plans required by MACT standards should be developed and incorporated into the permit, either directly or by reference. ARB disagrees with the necessity of work practice implementation plans because in many instances they include plans about plans. In addition, ARB believes that breakdown/malfunction plans are already covered by the ARB's and the districts' breakdown rules. ARB believes that SOP plans are useful but that the District/sources should be allowed to develop or substitute its own SOP requirements that are consistent with the MACT SOP.** **[Note: Compliance plans are not specified in the MACT but are a document specific to the SCAQMD for use in demonstrating compliance with its lead rule and contains provisions for such items as amount of lead processed, and the methodology to demonstrate compliance with an emissions collection system for lead and fugitive dust emissions from lead operations--thus, the strikeout of the term "Compliance plans."]**	**The issue of a substitute for Work Practice Implementation Plan has already been resolved. (See Issue 8)** **The issue concerning malfunction plans has been resolved. (See Issue 6)** **The EPA team agreed to a general, federally enforceable, permit condition requiring sources to: (1) develop SOPs consistent with the requirements in the NESHAP, (2) operate in compliance with the SOP(s), and (3) maintain and have available on site a copy of the SOP(s). The permit condition should further stipulate that any changes made by the operator to the SOP should be documented in an addendum to the SOP and signed by the appropriately delegated plant personnel . Further, the operator may not make changes to manufacturer's specifications if they change the intent of the specifications.**	**Issue resolved** **Issue resolved** **Issue resolved** **Implementation issue not addressed.** **➔ How will this provision become the approved alternative NESHAP requirement for sources in California?** **➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit for area sources and a Part 70 permit for major sources.** **➔ Can this issue be addressed globally by EPA under the general provisions or through implementation guidance?**

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagree-ment: (Global) **MRR Issues**	**16. Global MRR 5.** **Director's Discretion. The EPA team recommends that the District be allowed to approve alternatives only after the Region has been given data to support the proposal and ample opportunity to concur or non-concur, 120-180 days. At the end of that time, the Region would have to send some answer, no, yes, no because more information is needed and some explanation. Basically, this gives the Region the opportunity to control this discretion and ensure national consistency, while allowing the District to work up the issue and deliver the decision on their letterhead. CA believes that it is appropriate to delegate certain decisions to the permitting agency. Some of these decisions should require no EPA pre-approval. Others, would require EPA pre-approval and a set maximum review period (unless the permitting agency and EPA agreed on a longer period for a particular review) depending on the type of change and the complexity of the issue.**	**The team members, Mr. Bucket, and Mr. Morgester agreed that delegation of some of the decisions to the permitting agency was appropriate and necessary. They agreed that the process for establishing changes needed to allow for flexibility, have realistic time lines, and be bounded. The management team recommended that Region IX and CARB, with support from OAQPS, develop a protocol for implementing alternatives for the five NESHAPs reviewed. Region IX suggested that the protocols could be based on the one developed for reviewing previously conducted performance tests for chrome plating sources.** **California and the SCAQMD have significant concerns about the protocol approach and believe that the following alternative should be investigated concurrently: (1) incorporate into the MACT standards provisions delegating certain decisions to the permitting agency, (2) incorporate delegation provisions through the general provisions or guidance for implementing the waiver provision in the general provisions, or (3) develop a district rule applicable to all NESHAPs that provides the process for establishing alternative requirements and obtain approval of the rule under subpart E.**	**Issue resolved** **Implementation issues not addressed.**

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagree-ment: (Global) **MRR Issues**	**17. Global MRR 6.** **MACT standards are specific about what is to be included in the several types of reports. CA agrees that excess emissions as part of a breakdown should be reported, and CA requires prompt reporting of the same. However, CA believes that some of the information required by the MACT is not needed because the information either is readily available or because it can be easily obtained if it is determined that the information is needed.**	**Mr. Morgester agreed with EPA that the report details were necessary but also that the ARB should provide sources, especially smaller ones, with compliance assistance on the preparation of such reports (in this case, semi-annual reports).**	**Issue resolved**
Disagree-ment: **MRR Issues**	**18. Wood MRR 1.** **The MACT requires sources to maintain "certified product data sheets" for each coating. SCAQMD rule 109 currently requires VOC content information (SCAQMD will require HAP content information via amendments to rule 109).**	**The EPA team agreed that this issue was a non-issue since District Rule 109 required both MSDS sheets and other data sheets and that MSDS sheets would be "certified product data sheets" if/when they contain the required information. ARB believes that all necessary information will be made available on these sheets.** **(See related Issue 13)**	**Issue resolved**
Disagree-ment: **MRR Issues**	**19. Wood MRR 2.** **The MACT requires a copy of the work practice implementation plan (WPIP) and all records associated with fulfilling the plan. CA disagrees with the need for a WPIP (see Issue Wood EL 1) and the associated recordkeeping. CA supports recordkeeping to demonstrate compliance with the underlying requirement, but does not believe it necessary or reasonable to require records associated with fulfilling the plan.**	**The issue will be resolved according to the above discussion on WPIP. (See Issue 8)**	**Issue resolved**

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagree-ment: **MRR Issues**	**20. Lead MRR 1.** **The MACT requires the owner and operator to prepare, and operate according to, a standard operating procedures (SOP) manual [63.548]. The MACT provides considerable detail on the minimum requirements of the SOPs. The EPA team believes that all of the MACT requirements should be incorporated by reference into the Title V permit. CA believes that the requirements of the MACT could be addressed by a general provision in the district rule that requires development of a compliance plan consistent with the MACT SOP requirements. The compliance plan would be referenced in the Title V permit.**	**The EPA team agreed to a general, federally enforceable, permit condition requiring sources to: (1) develop SOPs consistent with the requirements in the NESHAP, (2) operate in compliance with the SOP(s), and (3) maintain and have available on site a copy of the SOP(s). The permit condition should further stipulate that any changes made by the operator to the SOP should be documented in an addendum to the SOP and signed by the appropriately delegated plant personnel . Further, the operator may not make changes to manufacturer's specifications if they change the intent of the specifications..**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit for area sources and a Part 70 permit for major sources. ➔ Can this issue be addressed globally by EPA under the general provisions or through implementation guidance?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Disagree-ment: **MRR Issues**	**21. Chrome MRR 1.** **The Chrome MACT requires that measurements of pressure drop across control devices and velocity pressure be recorded daily. CA believes that recording the measurements once per week is an appropriate frequency for chrome plating sources. CA further believes that the permitting agency needs to have a simple and expeditious way to increase or decrease this frequency based on compelling engineering evidence.** **22. Chrome MRR 2.** **The MACT standard requires surface tension to be measured according to a "sliding frequency scale: of every 4 hours, 8 hours, and finally every 40 hours. California believes that weekly measure of surface tension is appropriate. CA further believes that the permitting agency needs to have a simple and expeditious to increase or decrease this frequency based on compelling engineering evidence.** **23. Chrome MRR 3.** **The Chrome MACT requires foam blanket thickness to be measured every hour, increasing to every 8 hours after operation in compliance for the requisite period. CA believes that initially requiring hourly measurement of foam blanket thickness is appropriate but there needs to be a simple and expeditious process for the permitting agency to approve an alternative measurement frequency based on compelling engineering evidence.**	**All of these issues are related because they all revolve around whether the EPA should give the local permitting agency freedom to adjust a monitoring requirement on its own when that agency finds that compelling engineering evidence exists to do so--and thus not follow the MACT precisely.** **These specific issues are resolved if Region IX agrees that the following alternative are acceptable:** **1. Pressure drop and velocity pressure shall be recorded once per week provided the gauge is in plain site. (See issue 24.)** **2. Surface tension must be measured daily for 20 days and if no exceedances it can then be measured weekly.** **3. Foam blanket thickness must be measured hourly for 15 days and if no exceedances it can be measured daily.**	**Issues resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California.? ➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit for area sources and a Part 70 permit for major sources. ➔ Can this issue be addressed globally by EPA under the general provisions or through implementation guidance?

SACRAMENTO PROTOCOL ISSUES RESOLUTION
Morgester/Bucket Conference Decisions September 29 and Oct. 6, 1997

Issue Type	Issue	Decision	Analysis/Comment
Uncertainty **MRR Issue**	**24. Chrome MRR New.** **Gauge in plain view of the operator.**	**ARB and The EPA team agreed that the gauge should be located so that it could be viewed and be in plain sight of the plating or maintenance operator. (Gauge on the roof would clearly not suffice.) Plain sight means reasonably expected to be seen by assigned staff several times per day.**	**Issue resolved** **Implementation issue not addressed.** ➔ How will this provision become the approved alternative NESHAP requirement for sources in California? ➔ ARB favors an approach that will result in a federally enforceable condition that can then be placed on a district operating permit. ➔ EPA favors alternative requirement in rule or Part 70 permit.

6. CONCLUSIONS

A. Conclusions Based on the Field Inspections/ Rule Comparison Analysis:

1. Overall the sources inspected by the *Sacramento Protocol* team:

- ♦ already achieve most, but not all, of the emission reductions required by the NESHAP[1] by complying with SCAQMD and CARB regulations;
- ♦ already have installed control equipment, consistent with the NESHAP, as a result of SCAQMD and CARB requirements;
- ♦ already have installed continuous emission/parameter monitoring equipment, in many situations, consistent with the NESHAP, as a result of SCAQMD, CARB and NESHAP requirements;
- ♦ perform most of the work practices or very similar work practices required by the NESHAP[2];
- ♦ have recordkeeping requirements similar to, but not always as detailed, as the NESHAP;
- ♦ have district operating permits which contained conditions beyond those specified in the applicable District rules;
- ♦ do not have reporting requirements similar to the NESHAP except in the area of breakdown reporting ; and
- ♦ comply with some requirements/conditions in the district rules and permits that go beyond what is required in the NESHAP.

2. The team agreed that specific requirements of NESHAPs directly related to emission limits, applicability, compliance dates, test methods, and monitoring of critical emissions related parameters should be complied with. It was also a finding that not all these requirements are

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[1] This conclusion is based on observation of required control equipment being installed, review of emission limitations in district operating permits, statements made by the district engineering staff concerning test results and design requirements, and statements made by source operators.

[2] These work practice requirements were not in all cases identical to the NESHAP but they appeared reasonable and potentially as effective. This statement is generally applicable for level I work practice standards. Implementation of level II work practice standards varied with source category.

explicitly found in current district or State regulations. To achieve rule equivalency in these areas, CARB and the districts commit to incorporate these requirements (to make the requirements Federally enforceable) by modifying the applicable rules or by placing additional conditions in the facility's permit to operate.

3. CARB and the district question the necessity of certain requirements in California. These requirements, almost exclusively, relate to the areas of work practice standards, and monitoring, recordkeeping, and reporting. The team agrees that, when looking at particular work practice or MRR requirements in isolation, they can appear to have a relatively small impact on the overall emission reductions achieved by the NESHAP; for other areas, the team disagrees on the degree of reduced emission reductions. EPA disagrees with debating the basis for the NESHAP requirements while delegating the NESHAP (or determining whether alternative requirements are equivalent to the NESHAP). EPA believes this is inappropriate. In effect, CARB is attempting to nullify the NESHAP rather than determine equivalent requirements. If CARB or a district thinks that NESHAP requirements are not needed (useful) in California for some specific reasons then those reasons should form the basis of a rule substitution.

4. The field inspection and rule comparison process helped to illustrate the value of frequent inspections as a potential substitute for elaborate recordkeeping and detailed reporting. An observation in this area was that districts rely on a thorough project analysis to produce the permit and permit conditions, periodic inspections and other interaction (investigation of breakdowns and excess emissions) to ensure compliance and minimize excess emissions, and have a demonstrated mechanism to take enforcement action in case of non-compliance. Further, the CARB exercises its oversight authority by conducting routine audits of district efforts in the areas of permitting and enforcement.

B. Conclusions/Observations Regarding the Process

1. The *Sacramento Protocol* team process used for this study (detailed rule comparison, field inspections, discussions involving district engineers and inspectors in addition to enforcement and rule writers from U. S. EPA and CARB) with a relatively short (60 day) turnaround time for providing recommendations to management was successful in resolving most issues in an expeditious time frame. For the five rules under discussion, the list of differences was narrowed from about 200 issues to a total of about 24 items of uncertainty or disagreement. Some of the areas of disagreement are common to all five rules (example, the breakdown issue).

2. The *Sacramento Protocol* team process gave quick results. However, it needs to be evaluated whether the same level of resources (estimated to be 3 to 4 person years overall) can/should be devoted to establish equivalency for future rules (roughly 75 rules are currently in the development stage). In addition, it needs to be evaluated whether this level of resources would be needed for future equivalency determinations given lessons learned by the *Sacramento Protocol* team.

3. The team participants have a better appreciation of the reasons for an agency to have a particular position on areas of disagreement. We expect some core areas of disagreement to be resolved by senior management. Other areas of disagreement for future rules (mostly relating to MRR) may be best resolved by a protocol or NESHAP requirement which allows districts to change the federal provisions in some areas if supported by compelling engineering evidence. The protocol or requirement should provide reasonable time lines and commitments for preparing and responding to such requests, an understanding that requests and responses need to be supported with facts and analysis.

APPENDIX A

SACRAMENTO PROTOCOL

SACRAMENTO PROTOCOL
FOR THE NESHAPs/CALIFORNIA RULES
COMPARATIVE ANALYSIS (July 25, 1997)

PURPOSE: Resolve differences between U.S. EPA MACT and ARB ATCM/District rules.

BACKGROUND: The most significant hurdle in showing equivalency of State and district rules in California with the MACT standards has been in the area of recordkeeping and reporting. U.S. EPA's MACT standards rely on detailed recordkeeping and reporting to ensure compliance. The State and districts in California require less detailed recordkeeping and reporting than U.S. EPA, but rely more on periodic inspections and training. Because of the differences in approach, and because of the subjective nature of any evaluation of either approach, it has proved difficult to reach agreement on equivalency of California rules with the corresponding federal MACTs.

PROPOSAL: Recommendations for rule improvement (if necessary) will be based on paper rule comparison of all aspects of MACT and ATCM/District VOC rules selected for a particular category and on joint inspections (U.S. EPA, ARB, District inspectors) of selected sources from each category. The purpose of the inspections is to develop recommendations for improving State or district rules to ensure that the MACT emission reductions will be achieved. Once the inspections are done, the information from both the paper review and the inspections will be evaluated and a consensus reached on the proper requirements.

TIME LINE: Make recommendations for the MACT standards prioritized below. A study of other standards may follow.

1. Secondary Lead Smelters	Recommendations Due September 15, 1997
2. Chrome Plating and Anodizing	Recommendations Due September 15, 1997
3. Wood Furniture Manufacturing	Recommendations Due September 15, 1997
4. Gasoline Distribution	Recommendations Due September 15, 1997
5. Aerospace Coatings	Recommendations Due September 15, 1997
6. Petroleum Refining	Due date to be determined

ACTION PLAN:

A) Pre-Inspection Phase:(i) Conduct a paper rule comparison and make a preliminary judgement on the equivalency of all aspects of the MACT standard (selected for comparison) and applicable ATCM/District rule. Aspects to be compared include rule applicability, emission limits, work practice standards, and monitoring, recordkeeping, and reporting (MRR) requirements.

(ii) Develop inspection forms (for each source category) which incorporate all requirements imposed by U.S. EPA and applicable California regulations, and which allow focus (with space for comment) on MRR.

(iii) Select sources for each category to be inspected. We anticipate most inspections to be conducted in the South Coast Air Basin. District management to be contacted for obtaining fast track clearance.

B) Inspection Phase: (i) Conduct an inspection of the source unit as per standard inspection form. Inspections to be conducted by representatives from U.S. EPA Headquarters, Region IX, the ARB, and Districts.

(ii) Analyze inspection results to determine what parts, if any, of the State's ATCM/VOC rules or the EPA's MACT standards sould be improved, especially in the areas of MRR.

(iii) After finishing inspecting all sources in a category, team shall make recommendations for rule improvement, if needed.

COMPLIANCE ASSISTANCE PART OF PROTOCOL:

To assure the real-world compliance rate, ARB commits to:

(i) Compliance assistance manuals and training classes for industry and district inspectors where such effort will effectively obtain equivalent emission reductions;

(ii) Regular, periodic inspection of source categories where such effort will effectively substitute for MACT rule monitoring, recordkeeping, and reporting;

(iii) Rule effectiveness studies on a periodic schedule for ascertaining the effectiveness of the emission standards in modified MACT rules.

DRAFT SCHEDULE - Comparative Analysis of the NESHAPs/California Rules

Activity	Who Lead	Who Reviewed	Date
Select source categories	ARB	EPA, Region IX	July 11
Selection of coordination team 2 ARB (SSD/CD) 3 EPA (OECA/OEHHA/R9) 2 Districts	ARB EPA CAPCOA		July 16
Develop Review Protocol	ARB	"Team"	July 16 (Draft)
Develop comparison of applicability, emission limitation, and level 1 (quantifiable) work practice standards.	ARB/SSD	"Team"	July 18 (Draft)
Develop comparison of monitoring, reporting, recordkeeping, and level 2 (non-quantifiable) work practice standards.	ARB/CD	"Team"	
Develop inspection forms & investigation guides	ARB/CD	"Team"	
Selection of inspection teams	ARB/EPA/CAPCOA		
Conduct inspection	"Team"	N/A	
Analysis of inspection results	ARB/CD	"Team"	
Prepare draft report of findings	ARB/CD	"Team"	
Release draft report to stakeholders	"Team"		September 15

APPENDIX B

LOS ANGELES TRIP REPORT

Los Angeles Trip Report

South Coast Air District

August 18-22, 1997

prepared by: Tom Driscoll, EPA/OAQPS

Representatives from Office of Enforcement and Compliance Assurance (OECA), California Air Resources Board (CARB (both Air Programs and Enforcement staff)), Region 9, and Office of Air Quality Planning and Standards (OAQPS) met in Sacramento in July 1997 to discuss ways to demonstrate that California requirements are equivalent to the NESHAP requirements.

From this meeting, a protocol was developed that described how EPA and CARB could test whether the California approach is equivalent using CARB and/or South Coast Air Quality Management District (SCAQMD) requirements as compared to NESHAP rules for the following five categories:

- Secondary Lead Smelting
- Chromium Electroplating
- Wood Furniture Manufacturing
- Aerospace Coatings
- Gasoline Distribution and Marketing

A schedule was developed to evaluate the protocol and report results by September 30; expeditious testing is imperative because the MACT standards chosen have near-term compliance dates. The first step was to compare the SCAQMD and CARB rules against the MACT standards to determine where the rules didn't match up.

The next step was to begin field testing; representatives from OECA, OAQPS, Region 9, CARB (Stationary Source and Compliance Divisions), and SCAQMD staff met in Los Angeles, August 18-22, to observe inspections and discuss potential fixes of identified rule discrepancies with CARB and SCAQMD inspectors and SCAQMD permit engineers.

On August 18, Fred Dimmick and Tom Driscoll of OAQPS met at the SCAQMD offices with Charlie Garlow of OECA, Dan Donohoue, Henry Jordan, and Hardip Judge of CARB, and Ben Shaw, Amir Dejbaksh, Roger Christopher, Jim Molde, and Eugene Tenszler of SCAQMD. Later, Lisa Jennings of CARB participated in the meetings at the offices and each day the SCAQMD and Region 9 participants differed depending on the facilities inspected or rules discussed.

We began with a general discussion of the logistics for how we would proceed throughout the week. We agreed to begin each day at the SCAQMD offices, discuss the sources that we would visit each day; paying particular attention to the SCAQMD regulations and/or

permit requirements that did not match up with the corresponding MACT requirements. After visiting the site(s) each day, we agreed to meet back at the South Coast offices to discuss what we had seen and determine if SCAQMD or CARB's approach is equivalent to the MACT requirements. We also identified areas where we agreed to disagree. EPA staff said that although we could agree on potential solutions where their rules did not match up with ours and make recommendations to our upper management, EPA upper management would make the final decisions. After the first day, Lisa Jennings of CARB put together a list of the issues for each rule comparison and noted the areas where we could not come to agreement. These lists of "outstanding issues" are attached to the end of the report.

We then talked about the Gasoline Distribution (GD) MACT requirements and the comparisons with SCAQMD rules. More specifically, we discussed the areas where the SCAQMD rules did not match up the GD MACT and prepared to go out to some gasoline distribution facilities. Issues discussed included SCAQMD compliance plans and whether they could substitute for plans required by the GD MACT, where are the SCAQMD permitting monitoring requirements (regulations, policy, or negotiated in each permit), the use of a lockout system which prevents "uncertified" trucks from loading, and the use of variances by the SCAQMD. The use of variances was troubling for EPA staff, although we were assured that issuing variances was not easy or routine. We were given a copy of SCAQMD permits from Chevron and Mobil.

We then proceeded to a Chevron bulk gasoline (and diesel) terminal in Montebello. Fiaz Mohammed, the plant operator, met with us; the corporate manager joined us later. We began by discussing the processing units and tanks at the plant and how they are operated. We discussed the lockout system where trucks that have not been certified cannot be filled. The trucks are required to be inspected annually; this system is running at all Chevron terminals (in California). There is a daily limit on the amount of gasoline they can use to fill trucks, however they keep records on the amount of gas pumped to each truck. This facility uses a vapor recovery system to restrict emissions during pumping and refrigeration/condensation system for the storage tanks. A flare is also used for whatever emissions aren't caught. There is an interlock system that will shutdown the system if the temperature is outside of operating range. An annual source test is required. Later, the inspectors looked at loading records kept by Chevron.

We then began to check for equipment leaks. SCAQMD has a requirement for bulk terminals that the "sniffer" inlet needs to be held 2 centimeters (cm) away from the equipment whereas EPA Method 21 requires 1 cm away. A quick test of five valves, pumps, and flanges indicated that holding the sniffer inlet at 1 cm results in readings that were 3 to 7 times greater than holding the sniffer inlet at 2 cm. The inspectors for SCAQMD said that this requirement does not jibe with equipment leak measurement requirements from their other regulations and they would like to correct this problem. The SCAQMD inspectors then conducted a vapor recovery leak test where the results showed the vapor recovery system was working well. This facility also had a monitoring system for the truck loading which was plugged into each truck.

The system prevents overloading and spills. The inspectors also conducted a visual inspection of all the loading racks which indicated no apparent spills or leakage except from the diesel loading racks (which will be covered by another MACT).

We had planned to go to Mobil to look at their facility, but after this inspection it was late (planning around the incredible traffic is a must in the South Coast) so we went back to the SCAQMD offices. We then discussed the inspection and ramifications for the rule comparisons. The SCAQMD estimated that 15 bulk terminal sources would be major and, thus, subject to the GD MACT. The specific issues that we discussed are listed in Lisa's summaries which are attached. We also discussed some issues that proved to be global for all sources and source categories. Some of these issues are:

- Some SCAQMD permit requirements are not explicitly identified in rules, but are established during the permitting process based on general regulatory authority and internal guidance documents.
- Can SCAQMD compliance plans substitute for some MACT MRR requirements?
- Variances are not allowed within the MACT program, can their use by SCAQMD be approvable?
- Can CARB or the SCAQMD be delegated the general provisions authorities to make some decisions (approve or disapprove changes) also knows as the Director's discretion issues?
- Can SCAQMD/CARB inspections (more specifically, frequency and stringency of inspections) and/or rule effectiveness studies substitute for some MRR requirements?
- Are all work practice standards equally important? CARB suggested that work practice standards be split into important and less important.

On Tuesday, we discussed the Aerospace MACT and the McDonnell-Douglas facility in Long Beach. Some of the issues we discussed beforehand included carbon adsorber testing, the need for operation and maintenance plans (and potential alternatives), HEPA filters' manufacturers specifications, and the need for breakdown reports.

We then proceeded to the McDonnell-Douglas ((MD) now Boeing) facility in Long Beach. Armand Villena, Gilbert Vita, and Mike Czap from SCAQMD came on this inspection. We met with Bill Pearce, Bob Tomko, and Neal Truong of their environmental staff. Bill Pearce led us on the plant tour, along with Bob Tomko and Neal Truong. The major findings are listed below:

- the afterburner requirements in their permit are based on the SCAQMD BACT guidance book,
- MD does not do depainting,
- spray booths have HEPA filters,
- they intend to comply with the Aerospace MACT,

- they use low VHAP content solvents such as Stoddard's solvent,
- they are having trouble obtaining HAP content information from their suppliers,
- they keep daily records of the paints and solvents used,
- their ATI filters for their booths will be upgraded to 3 stage filters although the 2 stage filters already meet MACT requirements,
- their airplane paint hangar emissions are vented to a thermal oxidizer and 4 stage filters (filters have a magnahelic gauge monitoring system),
- they have a cap of 341 gallons/day/VOC,
- yearly reporting of solvent and paint use is required, and
- the inspection checklist for this facility alone is 19 pages long.

MD also had a chromium electroplating facility which we toured. The chromium electroplating processes' emissions were controlled by a thermal desorber. MD continuously monitors the temperature of this instrument and has asked for approval of an alternative monitoring protocol under the general provisions.

We had intended to visit another facility, but the length of this visit and traffic required that we return to the SCAQMD offices. The discussion topics are listed in Lisa's issues summaries.

On Wednesday August 20, we discussed the Wood Furniture (WF) MACT and facilities that we intended to visit. SCAQMD believes that only 3 or 4 facilities would be major sources and be subject to the WF MACT. There are differences between the SCAQMD rule and the wood furniture NESHAP in the following areas: the compliance date for the more stringent limitations is earlier in the NESHAP, the coating limitation for new sources are more stringent in the NESHAP, the SCAQMD rule does not regulate all the HAPS regulated by the NESHAP (exempts some HAPs that are not VOC). The SCAQMD agreed to correct these differences. They were less willing to correct other differences, such as operator training and work practice implementation plan requirements,. They suggested that some of these requirements may not be useful or may not require an alternative. Fred stated that we were not here to discuss the utility of MACT provisions; this wasn't Dan's understanding. We agreed to look when out in the field if their operations suggest sufficient operator training or an adequate work practice implementation plan. The wood furniture MACT has a lot of MRR and plan requirements that SCAQMD rules or permit conditions may not clearly serve as alternatives.

We then proceeded to Royal Cabinets (a wood furniture manufacturing facility) with Marian Coleman, Steve Jones, and Mark Vandereca of the SCAQMD to view their operation and see their usage records. Their records were not completely up-to-date and some of their coatings had changed. Their records were detailed. They computed usage before the start of the last shift to determine how much coating could be used in the last shift. They didn't have HAP content on their cans. We viewed their process and noted that the sprayers used good technique. We asked

the plant operator about training and an operating plan. He said the sprayers are trained briefly and must sand out and correct any mis-sprays. He said this process encouraged sprayers to spray correctly.

We then went to Woodland Products, another wood furniture manufacturing facility, and viewed their usage records. They used a dip process which has a very high transfer efficiency. Vendors provide training for their “dippers”. The dipping process is sloppier than the spraying therefore there was a lot of spillage near each dip tank. However, the plant operator stated that they could compute usage daily (as required) and demonstrate compliance.

After returning to the SCAQMD offices, we mainly discussed recordkeeping and operating plan requirements. Again, CARB and SCAQMD questioned the utility of some of these requirements and what potential alternatives existed. For a more specifics on the issues, see Lisa’s issues which are attached.

Thursday, we discussed the secondary lead smelting (SLM) MACT and the corresponding SCAQMD requirements. Before going out to Quemetco, we discussed their monitoring, recordkeeping, and reporting requirements and whether they were equivalent to SLM MACT requirements. We were provided with copies of permits for Quemetco and GNB. Michael Haynes and Mohan Balagopalan from the SCAQMD were part of these discussions and accompanied us to Quemetco.

We then proceeded to Quemetco and discussed the processes with the plant manager and some environmental managers. They stated that Quemetco would comply with the SLM MACT by the compliance date. Some of the questions/issues were what MRR is required, what types of filters and control devices they use, and how they ensure that the devices are operating properly. We wanted to know more about the process interlock or automatic shutdown requirements. The thermocouples have interlock and alarm systems. The scrubber temperature monitors, pH meters, SO2 monitors, flow rate monitors, inlet temperature to baghouse monitors, pressure monitors all have alarm systems. The facility has a design capacity of 20,000,000 lbs/day and the permit level is 12,000,000 lbs/day. The facility is almost totally enclosed which is not required in the SLM MACT.

After inspecting this facility, we went to a chromium electroplater; Kryler Corp. in Fullerton. This facility was complying with the amp-hour meter instead of the MACT requirement for hours of operation. The control device Kryler used were "poly balls" in the tanks and the exhaust was controlled by a three-stage packed bed scrubber with a HEPA filter backup system. They measured the effectiveness of the HEPA filter system by pressure drop. Once per day they wash down the first and second stage of the scrubber. They found that the process worked better if they used deionized water. They also had a small degreaser onsite, but they don't plan to keep it. Although the facility seemed well within MACT or CARB ATCM limits, the operators could not find their records or the records they found were not up-to-date. The inspector issued a "notice to comply" requiring them to submit all their operational records the

next day. We had planned to observe and inspect a chromium electroplater that uses a "merlin hood" control system which is not recognized by the Chromium Electroplating MACT, but is supposed to be a very efficient control system. However, we did not have time on Thursday or Friday.

On Friday, we met at the SCAQMD offices and discussed our findings, identified action items, and talked about the next steps. The action items were:

- EPA Headquarters will check on interpretations and intent for some provisions in some of the MACTs.
- SCAQMD and CARB will discuss the potential fixes to determine if the fixes they agreed to are feasible.
- EPA will try to identify areas where the SCAQMD and CARB rules are more stringent.
- All participants will identify areas where we agree to disagree; i.e. issues that don't appear to be solvable at staff level.

CARB asked that EPA consider a two-tiered system for evaluating work practice standard (WPS) provisions. Level 1 WPS would be closely tied to emissions and clearly need to be addressed in an equivalency demonstration or in the Sacramento Protocol process. For Level 2 WPS, CARB would agree that some of these would need to be addressed in an equivalency demonstration. Some others would need some kind of substitute or may not be addressed in a holistic demonstration; there would be more stringent requirements than the MACT elsewhere in the equivalency demonstration. For some other WPS, CARB would disagree with the utility of the requirement for California.

We discussed potential ways to implement the Sacramento Protocol. One approach for a quick resolution for the "train wreck" would be that the SCAQMD puts these requirements/fixes into Title V or district operating permits. For example, wherever some discrepancy between the SCAQMD rules and the corresponding MACT exists, in some cases CARB and SCAQMD agreed to fix this by putting the MACT requirement into the operating permit. Later, if needed, the temporary fix would be corrected by rulemaking.

Another issue we discussed is how much credit to give the SCAQMD for their inspection program, but no conclusions were drawn. We also decided that we needed to look into permit streamlining and how the streamlining process would work for the Sacramento Protocol. Another suggestion was developing protocol, similar to the chromium electroplating test methods and monitoring protocol, to evaluate MRR and Level 2 WPS requirements.

Areas of disagreement included:

- Frequency of monitoring, subsequent recordkeeping, and reporting for chromium electroplating and secondary lead smelting facilities.

- Frequency of when a periodic monitor needs to be measured; i.e., surface tension and foam blanket for chromium electroplating tanks.
- Roadway wash down for secondary lead smelting facilities.
- Formulation assessment plans for wood furniture coating; CARB thinks this is a Level 2 WPS.
- Solvent accounting system for wood furniture coating; CARB thinks this is a Level 2 WPS.
- Work implementation plan for wood furniture coating; CARB thinks this is a Level 2 WPS.
- Compliance status reporting and content of the reports which is an issue with all the MACT standards in this project; this is a Title V requirement.
- Operator training and recordkeeping for wood furniture coating.

Concerning plan requirements, CARB questioned why implementation plan are needed in California, given the years of experience sources in California have with complying with requirements identical or more stringent than the NESHAP. Given the California regulatory experience, they believed that rather than requiring everyone to develop a work practice implementation plan, the district should be allowed to require the plan only for those sources where they find a problem that a plan is likely to help solve. Further, the SCAQMD tried the plan approach in the early 1980s, but found that the working with a source during the inspections was a more effective approach.

Other topics discussed on Friday included: startup inspections, example implementation plans for guidance, give credit for good engineers and good inspectors, generic requirements, and developing a protocol to evaluate existing control systems and CARB/SCAQMD requirements to establish minimum requirements. Consistent requirements for all coatings' MACTs was encouraged. CARB said that delegation of general provision authorities to the districts was needed, but EPA responded that this would probably not occur without some kind of regional concurrence at the least.

Finally, the next steps were discussed. It was agreed that the comparison tables would be updated to reflect the latest decisions, develop a list of global issues, summary tables for the areas where we continue to disagree, and criteria for CARB oversight/audit of the districts was needed.

Aerospace NESHAP
Outstanding Issues

1. HAP Limits: NESHAP HAP limits are not part of local VOC rules. District will incorporate HAP limits.

2. Depainting Spot Stripping Exemption: District rule allows 3 gal/day to be used uncontrolled. NESHAP allows 26 gal/vehicle/year to be used uncontrolled. Another way of stating the exemption limit is the district rule allows no more than 1695 gallons of methylene chloride to be used uncontrolled in a single year per facility. The NESHAP completely exempts facilities with less than 6 vehicles. The 26 gal/vehicle/year is for facilities with greater than 6 vehicles. No upper end use can be calculated.

3. Contained Solvent Rags: District "recommends" rather than requires that solvent-laden rags be stored in closed containers. District will add requirement for closed containers to be used for solvent-laden cloths, etc. upon completing use.

4. Spills: District rule does not contain a requirement to conduct operations in a manner that minimizes spills. Rule 402 Public Nuisance provides authority to cite spills. EPA will have to decide if rule 402 is sufficient for minimizing spills. Or district will be required to develop a standard set of permit conditions including "minimize spills."

5. Handwipe Cleaning: The district requirement of 200 grams or less of VOC does not directly compare to the NESHAP options. Those options are: meet composition requirements or demonstrate a 60 percent volume usage reduction.

District will add a requirement of less than 0.1 percent carcinogen or less than 1.0 percent noncarcinogen HAP and VOC content to the 200 gram VOC option. Then those solvents will be exempt under the NESHAP.

6. Leaks in Spray Gun Cleaning Vats: We discussed leaks being controlled by district "improper maintenance" violations and EPA thought this might be a potential fix. District rule 1171(c)(3)(D) specifically states use only remote reservoir solvent containers that are free of leaks. Does this create an equivalent situation or is there another issue?

7. Chemical Milling Maskant Limit: NESHAP states Type I - 622 g/l and Type II - 160 g/l. The district rule states chemical processing - 250 g/l and chemical milling - 250 g/l. There are two problems. First Type I and Type II do not correspond to chemical processing and chemical milling. Second 622 g/l and 160 g/l do not match 250 g/l and 250 g/l. The district is committed to aligning the limits for chemical milling maskants.

8. Start-up, Shut-down, and Malfunction Provisions: Are breakdown provisions sufficient for equivalency?

9. Record HAP Content of Solvents: District will add requirement to record HAP content of solvents.

10. Availability of HAP Content in Product: EPA may need to work with manufacturers to provide that information to customers.

11. Record Leaks in Spray Gun Cleaning Vats: District doesn't believe that recording the leaks changes compliance. EPA disagrees. Can EPA allow records of leaks in spray gun cleaning vats to not be kept in lieu of other more stringent district requirements for aerospace operation controls?

12. Recordkeeping: With the exception of specific issues raised outside of this question, are the recordkeeping provisions within the district sufficient for equivalency with the NESHAP?

13. Depainting Spot Stripping Recordkeeping: District will add a requirement to record the amount of solvent used per plane?

14. Recordkeeping Requirements not in Rule: EPA is uncomfortable with requirements that appear in a permit but not in a rule. Can permit conditions substitute for rule requirements? Or can typical permit requirements be outlined in a "permit writing" rule to handle this issue?

15. Requirements for Parameter Monitoring: Districts do not want to specify certain parameters in a rule because individual facilities may require slight variations to be most effective. A possible fix is to include a requirement for parameter monitoring that is consistent with the federal rules in the "permit writing" rule.

16. Use of Alternatives (or Director's Discretion): Any time an exact requirement needs to be altered, the EPA has up to 180 days to review the change. District permit engineers make these decisions much faster. EPA believes they may make decisions faster than 180 days but locals want assurance that the time frame will be much shorter. One such approach is to limit EPA review time to 15 days and if no decision has been reached then the local agency is free to approve the change if the alternative is consistent with the requirements.

Gasoline Distribution NESHAP
Outstanding Issues

1. Applicability: Do California rules apply to breakout stations as defined in NESHAP?

2. Compliance Date: The SCAQMD requires equivalent compliance be 2/1/98. A source/performance test is required to demonstrate compliance by that date. The NESHAP requires compliance 45 days earlier on 12/15/97, however, a source/performance test is not required until 180 days after the effective compliance date [roughly 6/15/98].

3. Compliance Date for Equipment Leak Reports:
[I'm not certain that this is an issue, I just had a question because of the comment on page 3 of the "Technical Comments." Is there an equipment leak report compliance date in the NESHAP? Is there an equipment leak report compliance date in the local rules?

4. Vapor Recovery Compliance: EPA needs to better understand the shift from Executive Officer approval to CARB certification of vapor recovery.

5. Leak Detection Distance: California agrees that leak detection distance should be 1 cm or less - this may be common practice but is not reflected in rules. California will develop a solution.

6. Leak Detection Prior to Source/Performance Test: SCAQMD will review test protocol for requirement to check for leaks prior to source/performance test.

7. Definition of Leak: SCAQMD needs to review their definition of leak. NESHAP states 500 ppm and SCAQMD states 1000 ppm.

8. Inspection Requirements: Region 9 will assess the SCAQMD inspection form for similarity to the NESHAP procedures.

9. Equivalency of Test Methods: Steve Shedd needs Method 501.1 averaging times and specifications for conditions of source/performance test.

10. Monitoring Parameters: EPA may review draft compliance plan guidelines to ensure that NESHAP required parameters are written in local documentation.

11. Monitoring Parameter Values: The local agency assigns monitoring parameter values on a case-by-case basis. Local agencies do not want to be restricted to certain parameters and parameter values - they have the expertise to make case-by-case judgements.

12. Title V Reports: Annual, periodic, and quarterly excess emission reports are required by Title V. The team would like to explore possible flexibility in the required content of each

report. The local agency believes that exceedances not already required by local regulation is unnecessary. EPA disagrees.

13. Title V Semi-annual Report Requirement: We discussed allowing inspection reports to replace the semi-annual report.

Secondary Lead NESHAP
Outstanding Issues

1. Total Hydrocarbon Limit: NESHAP sets limits for both lead and total hydrocarbons. The district will incorporate THC limits into the permit.

2. Definition of Collocated: EPA has agreed to ask what is meant by collocated to help the local district determine whether sources are subject to the THC limit.

3. Emission Standard: The district specifies 98% control rather than a concentration limit. The district will add the NESHAP concentration limit to the permit.

4. Face Velocity or Total Enclosure: District requires compliance with ACGIH industrial ventilation guidelines. District will check guideline to see if the numerical value for face velocity is the same as in the NESHAP.

5. Cleaning Plant Roadways: The NESHAP requires that pavement be cleaned twice daily. The district rule requires wash-down, vacuum, or wet-mop at least once a week. The district also has ambient air monitors in place. We discussed substituting our work practice plus the ambient monitoring for the NESHAP work practice.

6. Vehicle Wash at Each Exit: Local agency will check for this provision. They will add this requirement to the permit if necessary.

7. Monitoring Provisions for Baghouses: We discussed substituting lock-out for these provisions. Eventually the local agency volunteered to develop a detailed analysis demonstrating that the provision is required or not.

8. Bag Leak Detection System: NESHAP requires detection of particulate matter emissions at 10 mg/m^3. The local agency [Mohan] will check to see if system is capable of meeting that requirement. If so, the local agency will add a permit condition to state, "must be consistent with 63.546(e)."

9. Corrective Action Plan for Bag Leak Alarm: The district will incorporate a permit condition that states, "take corrective action consistent with 63.548(f)."

10. Recording Pressure Drop Across HEPA Filter Daily: The local agency strongly disagrees with requiring daily recordkeeping for an item that will rarely change.

11. Recordkeeping for Total Hydrocarbons: The local district will add to the permit a condition to meet 63.548(j).

12. Annual Source Test Requirement: This requirement will be incorporated into local rules.

13. Title V Semi-annual Report Requirement: We discussed allowing inspection reports to replace the semi-annual report.

14. Reporting: Local agency prefers to only request records that are of the greatest significance. The NESHAP requires more records than the local district feels if necessary.

Example: Records of all alarms from the bag leak detection system, description of the procedures taken following each bag leak detection system alarm, excursions of temperature monitored or of total hydrocarbon concentration, summary of records maintained per the operating procedures for Baghouses, and an explanation of the periods when the procedures were not followed with the corrective actions taken.

Wood Furniture NESHAP
Outstanding Issues

1. HAP Limits: NESHAP HAP limits are not part of local VOC rules. District will incorporate HAP limits.

2. New Source Limits: The NESHAP has more stringent limits for new sources. The district VOC rule treats new and existing sources the same. The stringency will be ensured when the HAP limits are included.

3. Compliance Date: The compliance date in the NESHAP occurs before the equivalent standard in the local rule. The district will match the NESHAP compliance date.

4. Emissions Limitations: Because of the different units of measure involved, it is difficult to determine if the HAP emissions required by the NESHAP are being met. Do we propose a fix?

5. Operator Training: The NESHAP requires operator training. The district rule does not. The local agency does not think that requiring operator training is worthwhile. The compromise position is for the local agency to develop "comic book" training manuals and distribute them.

6. Implementation Plan: The NESHAP requires that owners/operators prepare a work practice implementation plan to define environmentally desirable work practices for each wood furniture manufacturing operation and addresses each work practice standard in the NESHAP. The local district objects to this requirement. EPA will go to stakeholders and ask if this requirement is really necessary for states that have established rules.

7. Equipment Leak Detection and Repair: Rule 1171 requires leak detection and repair for solvents. We propose adding coatings to Rule 1171 as well.

8. Cleaning and Washoff Solvent Accounting System: The NESHAP requires number of pieces reworked and the reason for the rework if solvents are used. The district rule requires record of usage only. The district believes that usage is sufficient information for air emission purposes.

9. Chemical Composition of Cleaning and Washoff Solvents: The NESHAP prohibits cleaning and washoff solvents that contain any of the pollutants listed in Table 4, in concentrations subject to MSDS reporting as required by OSHA. The local agencies will ensure that Table 4 pollutants are excluded from cleaning and washoff solvents as in the NESHAP.

10. Closed Containers: The district "recommends" rather than requires that storage containers be closed. Requiring closed containers for finishing, gluing, cleaning, and washoff materials is in violation of fire code.

11. Spray Booth Cleaning: Spray booth cleaning materials are limited to less than 8% by weight VOC in the NESHAP except if the spray booth is being refurbished the cleaning material is less than 1 gallon without a VOC limit. The local rule limits maintenance solvents to 900 g/l. The local agency has agreed to limit solvent usage per spray booth as in the NESHAP.

12. Formulation Assessment Plan for Finishing Operations: The NESHAP requires the owner/operator to identify Table % VHAPs in use, establish baseline usage, track annual usage, and notify the permitting authority when baseline is exceeded. Certain explanations relieve the owner/operator from further action including compliance with State air toxic regulations. We discussed allowing compliance with State air toxic regulations replacing the need for a formulation assessment plan. If this is insufficient, our statewide inventory (AB2588) may be sufficient in lieu of a formulation assessment plan.

13. General Recordkeeping Requirements: Area sources are required to keep records to show non-applicability for five years. The district rule requires non-major source records to be kept for 3 years. We propose to provide the additional 2 years of data from emission fees billing (EFB) at the local agency.

14. Operator Training Records: The local agency believes that the operator training "comic book" is sufficient record of an operator training program. EPA did not agree.

15. Formulation Assessment Plan Records: The local agency is hopeful that AB2588 records will be sufficient.

16. Operating Parameter Records: Districts do not want to specify certain parameters in a rule because individual facilities may require slight variations to be most effective. A possible fix is to include a requirement for parameter monitoring that is consistent with the federal rules in the "permit writing" rule. The following language has been suggested:

> Source identified test performance parameters and any related limit or range of limits identified in the (blank) NESHAP shall be placed in the Title V permit unless compelling engineering evidence developed by the local air district and/or CARB indicates that a different parameter limit or range of limits should be placed in the Title V permit.

17. Record of Control Efficiency Calculation: The NESHAP requires a calculation to demonstrate control efficiency. The local rule does not have similar requirement. Currently, no facility uses control devices to meet emission limitations.

18. Records of Compliance Status Information and Semi-annual Report Information. We have discussed finding flexibility in the required content of these reports. Therefore, the records kept may change.

19. Title V Semi-annual Report Requirement: We discussed allowing inspection reports to replace the semi-annual report.

20. Malfunction vs. Breakdown: In California, sources must be in compliance during start-up and shut-down. The issue is with breakdown provisions which allow a variance. The local agency believes that the variance provision is more stringent than the NESHAP malfunction provision.

21. Initial Notification: EPA wants the initial notification form. The local agency believes issued permits are sufficient notification.

22. Initial Compliance Status Report: EPA wants these reports. The local agency can abide by this requirement provided some relief is given for the work practice implementation plan.

23. MSDS Information: EPA may need to work with manufacturers to provide HAP information on MSDS and provide the information to customers.

APPENDIX C

COMPARISON TABLES FOR 5 SOURCE CATEGORIES

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1124 Rule to EPA Aerospace NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Sources Covered*	• Applies to all major sources engaged either in part of or in whole in the manufacture or rework of commercial, civil, or military aerospace vehicle or components [§63.741(a)].	• Applies to aircraft and spacecraft coating, assembly, and cleaning operations. Also applies to maskant applicators, aircraft refinishers, aircraft operators, and aircraft maintenance and service facilities. Also applies any facilities that manufacture and assemble products for aircraft and space vehicles [SC1124(a)].	• **Equivalent** • SC1124 covers areas that are not covered by the NESHAP.	We would need to determine the magnitude of a (plus) if used quantitatively.
Applicability *Compliance Dates*	• September 1, 1998	• January 1, 1997 [SC1124(c)(1)] • January 1, 1992 [SC1124(c)(4)]	• **Equivalent** (plus) Compliance dates for SC are sooner than that for the NESHAP; this is only relevant for the requirements for depainting operations	

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Exemptions*	● Contains no control requirements for the use of specialty coatings, adhesives, adhesive bonding primers, or sealants at aerospace facilities [§63.741(f)]. ● Exempts Research and Development activities, chemical milling, metal finishing, electrodeposition (except of paints), composites processing, electronic parts and assemblies, manufacturer of aircraft transparencies, and wastewater operations at aerospace facilities. Also exempts parts and assemblies not critical to the vehicle's structural integrity and flight. Space vehicles are exempt except for depainting [§63.741(f)]. ● Waterborne coatings for which organic VOC and HAP contents are below those indicated for the following: ● Antique aircraft	● Research and development labs exempt from requirements [SC1124(k)(10)].	● **Equivalent**	● The exemptions appears to be equivalent overall given NESHAP exempts more operations while SC rule exemptions are based on VOC containing amounts of coatings. ● There is a specific list of specialty coatings in the NESHAP. Coatings not listed as a specialty coating are covered by NESHAP.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Exemptions*	• Exempts primers, topcoats, chemical milling maskants, strippers, and cleaning solvents containing HAP and VOC less than 0.1 % or less than 1.0 % for noncarcinogens [§63.741(f)]. • Exempts primers, topcoats, and chemical milling maskant facilities that use less than 50 gallons each with a combined annual total of less than 200 gallons/year total at a facility [§63.741(g)].	• Exempt from VOC content and Transfer Efficiency: Incidental corrosion maintenance repair coating operations at military facilities that use less than 1.5 gal/day and total coating usage for such operations does not exceed 5 gal/day [SC1124(k)(3)]. • Exempt from requirements: • Facilities using less than 3 gal/day of VOC containing coatings and solvents [SC1124(k)(2)]. • Application of temporary marking coatings [SC1124(k)(11)]. • Aerosol coating products [SC1124(k)(15)]. • Exempt from VOC content: • Coatings used in a volume of less than 20 gal/yr provided the facility uses less than 200 gal/yr [SC1124(k)(1)]. • Clear or translucent coatings applied on clear or transparent substrates [SC1124(k)(5)]. • Recoating of assembled aircraft at rework facilities if original coating formulations are used [SC1124(k)(7)]. Adhesives with separate formulations used in a volume of less than 10 gal/yr [SC1124(k)(8)].		***Note: This portion of the table does not match one-to-one.***

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Exemptions*	● Exempts space vehicles except for depainting operations. ● Exempts from hand-wipe cleaning requirements: • Components of breathing oxygen systems [§63.744(e)(1)]. • Adhesive bonding [§63.744(e)(3)]. • Electronic parts [§63.744(e)(4)]. • Aircraft and ground support equipment fluid systems [§63.744(e)(5)]. • Fuel cells, fuel tanks, and confined spaces [§63.744(e)(6)]. Etc. also §63.744(e)(7)through(13) ● Exempts all hazardous wastes subject to RCRA requirements [§63.741(e)].	● Space vehicle manufacturing exempt from clean-up VOC content requirements [SC1124(k)(4)]. ● Surface cleaning of solar cells, fluid systems, avionic equipment, and laser optics exempt from solvent use, clean-up, and stripping requirements [SC1124(k)(12)].	● **Equivalent**	

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Standards *Primer and Topcoat Application Operations*	<u>Uncontrolled Coatings</u> ● Primers: • Organic HAP emissions -- 350 g/L (2.9 lb/gal) [§63.745(c)(1)] • VOC Content -- 350 g/L (2.9 lb/gal) [§63.745(c)(2)] ● Topcoats and Self-priming topcoats: • Organic HAP emissions -- 420 g/L (3.5 lb/gal) [§63.745(c)(3)&(4)] • VOC Content -- 420 g/L (3.5 lb/gal) [§63.745(c)(3)&(4)] <u>Controlled Coatings</u> ● Each control system should reduce HAP and VOC emissions by 81% or greater (capture and destruction) [§63.745(d)]. Application [§63.745(f)(1)(I) through (viii)].	● Primers: • VOC Limit -- 350 g/L • Low solid corrosion -- 650 g/L [SC1124(b)(1)] ● Topcoat • VOC Content -- 420 g/L [SC1124(b)(1)] ● Rule includes VOC limits for many other types of aerospace coatings, OR uses control device that reduces emissions from an emission collection system by at least 95%, by weight or exhaust is less than 50 ppm. Overall 86% reduction	● **Equivalent If/When** SC requirements covers organic HAP content for primers or topcoats via permit or rule.	● **Comment**: NESHAP exempts specialty coatings, but these are a small portion of the emissions. ● In general, SC could either add VHAP limits or include non VOC VHAP in the VOC definition ● The SC low solids corrosion limit may need to be changed. ● Averaging across primers and topcoats has generally not occurred in the SC (aerospace industry). Thus it is not an issue although the NESHAP prevents such averaging. Non listed specialty coatings can be included in averaging. **SC could revise to indicate that greater "averaging" is not allowed by delegation.**

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Primer and Topcoat Application Operations*	Application Equipment ● Primers and topcoats should be applied by • Flow/curtain coat application • Dip coat application • Roll coating • Brush coating • Cotton-tipped swab application • Electrodeposition (dip) coating • High volume low pressure (HVLP) spraying • Electrostatic spray application Application method equivalent to HVLP or electrostatic spray.	Application Equipment • Flow coater • Dip coater • Roll coater • Electrostatic application • High volume low pressure (HVLP) spray • Hand application methods • Alternative application methods approved by the Executive Officer • Approved air pollution control equipment	● **Equivalent** •SC Rule or permits require the same application equipment.	

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Standards *Depainting Operations -- Non-HAP Chemical Strippers and Technologies*	● Shall not use more than 26 gallons annually of organic HAP-containing chemical strippers per commercial aircraft depainted or more than 50 gallons of organic HAP-containing chemical stripper per military aircraft depainted for spot stripping and decal removal [§63.746(b)(3)].	● Prohibits the use of stripper on aerospace components unless it contains less than 300 g/L VOC OR ● VOC composite partial pressure is 9.5 mmHg or less at 20°C [SC1124(c)(2)(B)(ii)].	● **Equivalent if/when** SC1124 incorporates HAPs and 26/50 gallon limits (via permit or rule).	
Emissions Standards *Depainting Operations -- Organic HAP-Containing Chemical Strippers*	● If control devices are installed before the effective date, then the emissions should be reduced by 81% [63.746(c)(1)]. ● If control devices are installed after the effective date, then the emissions should be reduced by 95% or greater (taking into account capture and destruction and the volume of stripper used) [§63.746(c)(1)].	● The emission control system for operations shall collect 90% of generated emissions with a destruction efficiency of 95% or an output of less than 50 ppm [SC1124(c)(5)].	● **Equivalent** (plus) • SC requirements for control devices are stricter than the NESHAP existing source requirements. ● **Equivalent if/when** Sc incorporates requirements for control devices are as strict as the NESHAP requirements for new sources via permit or rule.	● SC could add new source requirements - need to ensure new source definitions are equivalent.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Chemical Milling Maskants Application Operations*	Uncontrolled Maskants ● Emission limit for organic HAP and VOC emissions for Type I uncontrolled maskants: 622 g/L [61 FR 55856]. ● Emission limit for organic HAP and VOC emissions for Type II uncontrolled maskants: 160 g/L [61 FR 55856]. ● Allows averaging for uncontrolled chemical milling maskants using any combination of maskants. The averaging scheme must be included as part of the title V permit [§63.747(e)(2)].	● For maskants, the VOC content should be 250 g/L [SC1124(c)(1)(ii)] or	● **Equivalent** if/when Sc incorporates requirements for organic HAPs/VOC equal MACT levels via permit or rule.	● EPA needs to define the relationship between Type I and II etchants with Type I and Type II chemical milling maskants. * SC committed to align with NESHAP Type I and Type II emission limits.
Emissions Standards *Chemical Milling Maskant Application Operations*	Controlled Maskants ● Control systems reducing operation's organic HAP and VOC emissions by 81% or greater (capture and destruction) [§63.747(d)].	● Controlled to reduce emissions from an emission collection system by at least 95% by weight or the output of the device is less than 50 ppm [SC1124(c)(5)(A)].	● **Equivalent** (plus) • SC Rules are stricter.	

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards *Houskeeping Measures*	● Close containers should be used for solvent-laden cloth, paper, or any other absorbent applicators used for cleaning [§63.744(a)(1)]. ● Containers should be handled in a manner so as to minimize spills [§63.744(a)(3)]. ● Store fresh and spent cleaning solvents used in aerospace cleaning operations in closed containers [§63.744(a)(2)].	● VOC-containing solvents and cloth and paper moistened with VOC-containing solvents shall be stored in closed, non-absorbent, non-leaking containers [SC1171(c)(4)]. ● A person shall not perform solvent cleaning unless one or more of the following cleanup devices or methods are used: • Closed containers or hand held spray bottles from which solvents are applied without a propellant-induced force [SC1171(c)(2)(B)]. • Cleaning equipment which has a solvent container that can be and is closed during cleaning operations, except when depositing and removing objects to be cleaned and is closed during non-operation with the exception of maintenance and repair to the cleaning equipment itself [SC1171(c)(2)(C)].	● **Equivalent if/when** SC permit or rules are revised to apply to HAP only solvents * implement to language requiring closed containers, and to add conditions for minimizing spills.	• While housekeeping standards appear to be equivalent, it is difficult to compare on the amount of emissions reductions. ● Checked out the comparison as a part of the team's inspections. When we consider the underlying requirements and how the specific requirements are documented, they appear equivalent.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards *Housekeeping Measures*	● Approved cleaning solvent -- Aqueous -- solvents with water as the primary ingredient. The flashpoint should be greater than 93°C, and the solution must be miscible in water [§63.744(b)(1)]. ● Approved cleaning solvent -- Hydrocarbon-Based - cleaners composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and have a maximum vapor pressure of 7 mmHg at 20°C. These cleaners also contain no HAP or ozone depleting compounds.	● The current limit for repair and maintenance general cleaning solvents is 900 g/L VOC. In January 1999 the limit will be reduced to 50 g/L VOC [SC1171(c)(1)(B)(I)]. ● Product cleaning during the manufacturing process or surface preparation for coating is 70 g/L [SC1171(c)(1)(A)(I)].	● **Equivalent** given SC rule does not provide exemptions for any cleaning solvents. District will/does not allow exemptions in §63.744(b)(1) or §63.744(b)(3).	● Need to determine how to evaluate equivalency for exempted cleaning solvents <u>only if SC provides exemptions</u>. Could (1) do an analysis of cleaning solvents to determine if flashpoints, mmHg and g/L can be compared (and if yes determine whether equivalent on mass basis), (2) SC could adopt the NESHAP requirements, or (3) could determine how to handle on a case by case basis (narrowing analysis to site specific basis and do permit streamlining)
Work Practice Standards *Hand-Wipe Cleaning*	● Owners or operators of a new or existing hand-wipe cleaning operation shall use cleaning solvents that: • Are aqueous or hydrocarbon-based [§63.744(b)(1)]. • Have a composite vapor pressure of 45 mmHg or less at 20°C [§63.744(b)(2)]. **OR** • Demonstrate that the volume of hand-wipe solvents used has been reduced by at least 60% from a baseline adjusted for production [§63.744(b)(3)].	● Requires wipe-cleaning when using solvents for cleaning [SC1171(c)(2)(A)] ● Requires cleaning of clean-up materials with a VOC composite partial pressure is 45 mmHg [SC1124(c)(2)(A)(i)] or less at 20°C or contains 200 g/L of VOC [SC1124(c)(2)(A)(ii)]. ● May use a control system with a solvent cleaning operation instead of meeting solvent requirements and cleaning device/method requirements [SC1124(c)(5)].	● **Equivalent if/when** SC incorporate VHAP into <45 mmHg at 20ºC requirement via permit or rule.	*SC indicated they would add the same deminimis language. Potential alternative option would add specification of 0.1% for carcinogens and 1.0% for noncarcinogens to 200 g/l of VOC requirement.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards Spray Gun Cleaning	• When using an enclosed system where spray guns are used, the owner or operator should clean in an enclosed system that is closed at all times. Force solvent through the gun. If leaks are found during the monthly inspection, they must be repaired within 15 days. If not, the solvent shall be removed, and the enclosed cleaner shut down until the leak is repaired [§63.744(c)(1)]. • When using a nonatomized cleaning system, the owner or operator should clean the spray gun by placing the solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air is to be used [§63.744(c)(2)]. • When using disassembled spray gun cleaning, the owner or operator should disassemble the spray gun and clean the components by hand in a vat, which shall remain closed at all times except when in use [§63.744(c)(3)]. • When using atomizing cleaning, the owner or operator should clean the spray gun by forcing the solvent through the gun and direct the resulting atomized spray into a waste	• SC1171(c)(2) requires comparable procedures. • The owner or operator should use a non-atomized solvent flow method where the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection or to avoid excessive pressure build-up inside the container [SC1171(c)(2)(F)].	• **Equivalent if/when** SC requires (via rule or permit) that leaking equipment must be taken out of service immediately.	**Comment**: Need a record only if leaking equipment is not taken out of service immediately.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards *Flush Cleaning*	• The owner or operator shall empty the used cleaning solvent each time an aerospace part or assembly, or a component of a coating unit is flush cleaned into an enclosed container or collection system when not in use or into a system with equivalent emissions control [§63.744(d)].	• Solvent flushing method where the cleaning solvent is discharged into a container which is closed except for solvent collection operations and to avoid excessive pressure buildup. • The discharge must be collected into containers without atomizing into the open air. • The solvent may be flushed through the air by hydraulic pressure or by pumping [SC1171(c)(2)(G)].	• **Equivalent**	

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards Primer and Topcoats -- Inorganic HAP Emissions	• These coats should be applied in a spray booth or hangar in which the air flow is directed downward, onto, or across the part or assembly being coated and then exhausted through one or more outlets [§63.745(g)(1)]. • For existing sources, the air stream should be controlled by passing the air stream through either a dry particulate filter system or a water wash system before exhausting it to the atmosphere [§63.745(g)(2)(i)]. • For new sources, the air stream should be controlled by passing the air stream through either a three-stage dry particulate filter system or a water wash system before exhausting it to the atmosphere [§63.745(g)(2)(iv)]. • Water wash booths shall remain in operation during all coating application operations [§63.745(g)(2)(ii)]. • Dry filter booths shall include two-stage filter systems or the equivalent [§63.745(g)(2)(iii)]. • For June-1994 through October 1996, use a 2-stage filter or if the primer or topcoat contains chromium or cadmium, the control shall consist of either a three-stage filter system, HEPA filter system, or	• SC 481 requires comparable specification on operations. • SC1402 and 1303 require permit conditions that address these emissions, although in an implicit manner. • In practice, sources use HEPA filters to comply with SC rules.	• **Equivalent if/when** SC incorporates MACT requirement via permit or rule while allowing alternative requirements based on compelling engineering reasons to do otherwise (including responsive EPA Regional and Headquarters participation).	

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards *Non-HAP Chemical Strippers and Technologies*	● If airborne inorganic HAP emissions are generated from dry media blasting equipment, then the depainting operation should be performed in an enclosed area. Any air stream removed from the enclosed area should be passed through a dry particulate filter system, a baghouse, or water wash system before exhausting it to the atmosphere [§63.746(b)(4)(i) & (ii)].		● **Not Equivalent if/when** • SC requires via rule or permit specifications consistent with the MACT requirements unless there are compelling engineering reasons to do otherwise (including responsive EPA Regional and Headquarters participation).	● SC checking on the abrasive blasting rules.
Work Practice Standards *Handling and Storage of Wastes*	● Handle and transfer waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills [§63.748].	● All VOC-containing solvents used in solvent cleaning operations shall be stored in non-absorbent, non-leaking containers which shall be kept closed at all times except when filling or emptying [SC1171(c)(4)].	● **Equivalent** • NESHAP and SC Rule are similar.	

Sept Update to DRAFT August 14, 1997 - NESHAP EQUIVALENCY ANALYSIS FOR AEROSPACE MANUFACTURING & REWORKS

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
Recordkeeping (RK)			
General Applicability	General RK, 63.752(a) refers to General Provisions 63.10(a), (b), (d), (f).	General RK, 109(c)	See analysis below for specific parts.
RK Retention	63.10 General RK: (a) Applicability & general information (b) General recordkeeping requirements (1) All files with necessary records to be maintained for at least 5 years, 2 years at the site.	Record retention for a Title V source, 3004(a)(4)(E): 5 years Record retention, 109(c)(1): Maintain daily records for the most recent two (2) year period. Minimum record retention 2 years, H&SC 42705.	**Equivalent for major sources, but area sources are required to maintain records of non-applicability for 5 years and will need the same fix as under Wood Furniture, that is, retention of emissions fee billing records by SCAQMD for the extra three years.**
General RK: including malfunction RK	General recordkeeping requirements, [63.10(b)(2): (i) occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); (ii) occurrence and duration of each malfunction of the air pollution control equipment; (iii) maintenance performed on the air pollution control equipment; (iv) taken during periods of startup, shutdown, and malfunction (v) demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (vi) each period during which a CMS is malfunctioning or inoperative (including out-of-control periods); (vii) required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); (viii) results of performance tests, CMS performance evaluations, and opacity and visible emission observations; (ix) measurements as may be necessary to determine the conditions of performance tests and performance evaluations; (x) CMS calibration checks; (xi) adjustments and maintenance performed on CMS; (xii) information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section; (xiii) emission levels relative to the criterion for obtaining permission to use an alternative test (xiv) documentation supporting initial notifications and notifications of compliance status	Must operate to permit conditions, 203. Operation, maintenance, performance test results are usually included in the permit. Sources are normally required to be in compliance during startup and shutdown-no excess emissions-no issue. District spokesperson indicated that permits may contain equipment malfunction requirement that require the source cease operation if an equipment malfunctions. Breakdown provisions, 430. Breakdown reporting requirements are similar to malfunction RK requirements. See Breakdown Reporting below for details. Similar conditions include: - duration - description of breakdown, e.g., time, cause, location, equipment, etc.	**Not equivalent unless permit is an appropriate mechanism. Permit should require records of SSMs, maintenance, etc. See other discussions of SSM plans generally in Wood Furniture.** CA position: Equivalent substitute - S/S Plans not necessary. . . sources must comply during SIS - Breakdown plan not necessary. Compliance with district breakdown rule provides information - Malfunction covered by district breakdown rule

Sept Update to DRAFT August 14, 1997 - NESHAP EQUIVALENCY ANALYSIS FOR AEROSPACE MANUFACTURING & REWORKS

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
Applicability Determination PTE RK	Applicability determinations must be retained for 5 years and must contain sufficient details to determine applicability, 63.10(b).		**Not equivalent, but solvable by emissions fee billing records, as mentioned above.** No similar requirement. Equivalent Substitute - District fee billing records equivalent substitute for last 2 years of 5 year retention records.
Cleaning operations RK	Cleaning requirement RK, 63.752(b)(1). - name of solvent - vapor pressure - organic HAP constituents	Daily records: Refer to primers and topcoats below, 109(c).	**Equivalent.**
Spray Gun Cleaning RK	Spray gun cleaning RK, 63.752(b)(5) A record of all leaks from enclosed spray gun cleaners identified by visual inspection of the seals and all other potential sources of leaks associated with each enclosed gun spray cleaner system at least once per month. Inspections shall occur while the system is in operation, 63.751(a). -monthly inspection record -source checked for leak -date leaks discovered -date leaks repaired		**Not equivalent unless rule is changed or permit is an acceptable mechanism. CA proposes to change rule to remove leaking equipment immediately and record whenever the equipment is NOT removed immediately. Sounds good.** CA position: Equivalent if/when provision added to rule or permit requiring leaking equipment to be immediately removed from service. Records kept of any situations where leaking equipment not immediately removed from service. Leaks and spilled material is a hazardous waste and is covered under RCRA and exempt from this NESHAP, 63.741(e).
Flush Cleaning RK	Flush cleaning with semi-aqueous (60 percent water) RK, 63.752(b)(2): -name of cleaning solvent, -data/calculation to demonstrate composition req. -annual records based on facility purchase or usage records	Daily records: Refer to primers and topcoats below, 109(c).	**Equivalent.**
Handwipe Cleaning RK	Handwipe cleaning RK: Approved solvent (aqueous 80 percent water and HC 7 mm Hg at 20 ^{o}C), 63.752(b)(2): -name of cleaning solvent -data/calculation to demonstrate composition requirement -annual records based on facility purchase or usage records Composite VP 45 mm Hg or less at 20 ^{o}C or an approved alternative plan 63.752(b)(3): -name of each cleaning solvent -composite vapor pressure -all vapor pressure test results	Daily records: Refer to primers and topcoats below, 109(c).	**Equivalent+.** **SC has daily records versus MACT's monthly records. Although not entirely matching up, Boeing had some records, although not all the MSDS sheets, on all coatings. VHAP info needed.** **CA wants the manufacturer to get the VHAP content on the MSDS sheets and cans. This should not be the o/o's responsibility. Recommend EPA action to require this of the manufacturers.**

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	-amount (in gallons) of each cleaning solvent used each month -demonstrate a 60 percent reduction from baseline adjusted for production for the approved alternative plan, 63.744(b)(3), demonstration option. (no requirements are listed in 63.752) Exempt solvents RK, 63.752(b)(4): -identity and amount (in gallons) of each solvent used each month at each operation -a list of the process that are exempt per 63.744(e) to which the cleaning process applies Non-Compliance Solvent used in exempt operation; -new cleaning solvents -composite vapor pressure or notification that they comply with aqueous or HC composition requirements (no requirements are listed in 63.752, however this information must be reported in the semiannual report, 63.753(b)(2), so records must be kept)		
Primers and topcoats: Uncontrolled RK	Uncontrolled primer & topcoat RK, 63.752(c)(1),(2),(3),: (1) The name and VOC content as received and as applied of each primer and topcoat used at the facility. (2) For uncontrolled primers without averaging: (i) The mass of organic HAP emitted per unit volume of coating as applied (less water) (H_i) and the mass of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_i) for each coating formulation within each coating category used each month (as calculated using the procedures specified in § 63.750(c) and (e)); (ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_i and G_i; and (iii) The volume (gal) of each coating formulation within each coating category used each month. (3) For "low HAP content" uncontrolled primers with organic HAP content less than or equal to 250 g/L (2.1 lb/gal) less water as applied and VOC content less than or equal to 250 g/L (2.1 lb/gal) less water and exempt solvents as applied: (i) Annual purchase records of the total volume of each primer purchased; and (ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the organic HAP and VOC content as applied. These records shall consist of the manufacturer's certification when the primer is applied as received, or the data and calculations used to determine H_i if	Recordkeeping requirements, 109(c): (1) An owner or operator of a stationary source using adhesives, coatings, solvents, and/or graphic arts materials . . . The records shall include, but not be limited to, the following: (A) each applicable District rule number pertinent to the operation for which records are being maintained; (B) a list of the permit units involved in the operation(s) using adhesives, coatings, solvents, and/or graphic arts materials; (C) the method of application and substrate type; (D) the amount and type of adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material used in each permit unit or dispensing station (when permitted equipment is not involved), including exempt compounds (use of amounts of one pint per week or less may be recorded in an alternative manner); (E) the VOC content in each adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material; (F) the amount of diluent, surface preparation, clean-up, or wash-up solvent (including exempt compounds) used and the VOC content of each (use of amounts of one pint per week or less may be recorded in an alternative manner); (G) where applicable, the vapor pressure of solvents used as surface cleaners; and	**Equivalent.** The vapor pressure requirement is the same. The district requires both a vapor pressure and a VOC content limit. District requires daily recordkeeping. Coating and solvents used in quantities greater than one pint per week are required to maintain records including the amount and compounds including exempt compounds (HAPs).

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	not applied as received.	(H) oven temperature (for coating operations). (2) Exempts recordkeeping fro solvent which has a water content of 98 percent or more, by weight, or a VOC composite pressure of 0.1 mm Hg or less at 20°C (68°F), or contains VOC consisting of more than 12 carbon atoms.	
Primers and topcoats: Uncontrolled Averaged RK	Averaging uncontrolled primer & topcoat RK, 63.752(c)(4): For primers and topcoats complying with the organic HAP or VOC content level by averaging: (i) The monthly volume-weighted average masses of organic HAP emitted per unit volume of coating as applied (less water) (H_a) and of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_a) for all coatings (as determined by the procedures specified in § 63.750(d) and (f)); and (ii) All data, calculations, and test results (including EPA Method 24 results) used to determine the values of H_a and G_a.	District AECP includes averaging, 108: Source must submit a plan that demonstrates: - averaging on a 24-hour daily basis - baseline emission for each piece of equipment - calculations showing a 20 percent reduction - how the 20 percent reduction will be enforceable, permanent, quantifiable, and surplus - daily records including water and exempt VOCs.	**Equivalent+.** District rule is more stringent because of the 20% reduction price of entry to the averaging process. No source has elected to do averaging at this time.
Coatings: Qualification acceptance testing on coatings with future compliance date RK	NESHAP does not contain future compliance dates.	Recordkeeping requirements, 1124(j): - manufacturer - product number - VOC content - applicable coating category for each test candidate progress on candidate tested during this period - approvals received for coating which comply with future compliance dates - volume of coating used in each coating category for which there is a future compliance date	**Not applicable.**
Primers and topcoats: Controlled RK	Carbon adsorber, 63.652(c)(1),(5),(6): - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and - all test results, data, and calculations used in determining the overall control efficiency - the length of the rolling material balance period and all data and calculations used for determining this rolling period. - the record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or Nonregenerative carbon adsorbers: - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and - all test results, data, and calculations used in determining the overall control efficiency. - the record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.	Recordkeeping requirements, 109(c) above. The following information was provided by SCAQMD: For Control Equipment: - overall control efficiency calculations are performed during initial application evaluation process - conditions are always imposed to ensure proper operation and to maintain the efficiency of the equipment Carbon Adsorbers: - flow indicator, - approved measuring device at the outlet, - outlet concentration, - airflow limits, - carbon quality, - replacement standards (based on emissions limits at the outlet or engineering calculations), - overall efficiency,	**Not Equivalent unless rule is changed or permit is acceptable mechanism. Although the source is not required to keep this information, it must be submitted and SCAQMD keeps it. SCAQMD puts enforceable conditions in permits.** CA position: Equivalent if/when the SC requires by rule or permit, records supporting monitoring parameters requirements consistent with the MACT. AQMD requires applicants to submit information necessary to perform a complete engineering evaluation (including data, calculations, manufacturer performance guarantees, etc.) AQMD reviews and archives this information for future use and reference.

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	Not a carbon adsorber: - name and VOC content as received and as applied - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and - all test results, data, and calculations used in determining the overall control efficiency; Incinerator other than a catalytic incinerator: - continuous records of the firebox temperature recorded under § 63.751(b)(9) and - all calculated 3-hour averages of the firebox temperature; and Catalytic incinerator is used, - continuous records of the temperature recorded under § 63.751(b)(10) and all calculated 3-hour averages of the recorded temperatures.	- source tests to demonstrate efficiency, - daily VOC emissions, - additional source test if necessary. Thermal or Catalytic Oxidizer: - temperature measurement and recording device, - minimum temperature at the outlet or oxidation temperature in the oxidation bed, - VOC concentration at the outlet or total VOC emissions in any one calendar day, - approved VOC measuring device or additional source test. Other Incinerators (Afterburner): - temperature measurement and recording device, - minimum preheat temperature requirement, minimum temperature and retention time in the combustion chamber, destruction efficiency, - VOC concentration or total VOC emissions in any one calendar day, flow rate, - approved VOC measuring device or additional source test.	AQMD, also requires submittal of any subsequent source test results. Enforceable conditions are imposed to ensure compliance at any time. Sources had permit conditions requiring monitoring records. The EPA requires a mass balance. Check facility records to determine if mass balance could be calculated from the records maintained by the facility.
Application equipment for Primers and topcoats with organic HAP or VOC emissions RK	No requirements.	Method of application and substrate type, 109(c).	**Equivalent+.** District rule is more stringent.
Primer and Topcoats: Inorganic HAP RK	Dry particulate (two stage) or HEPA Filters, 63.752(d): - pressure drop across the operating system once per shift during operation - acceptable limit(s) of the pressure drop specified by the filter or the booth manufacturer or locally prepared operating procedure Water wash: -water flow rate through the operating system once each shift during operation - acceptable limit(s) of the water flow rate specified by the filter or the booth manufacturer or locally prepared operating procedure	The following information provided by SCAQMD: Dry Particulate or HEPA filters: - installation of mechanical gauge, - static pressure differential across the filter(s), - dust collection discharged requirements (closed container only), - thickness of filters, - total VOC emissions in any one day, and - MSDS. Waterwash system: - water curtain completely covering the exhaust section of the booth, - MSDS, - VOC emissions in any one day.	**Equivalent if/when CA requires by rule or permit that the MACT is matched. Boeing spent $300,000 to put interlocks on all the magnehelic pressure drop meters and is adding flow meters to the water wash system.** AQMD requires applicant to submit manufacturer's data stating the proper operating pressure drop or proper waterflow rate. Permits are granted with appropriate conditions based on the submitted data. AQMD does not require continuous recording of pressure drop or water flow rate. Pressure drop or water flow rate recording for each shift is burdensome and excessive. Equivalent compliance assurance can be demonstrated using other methods such as installation of an

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
			alarm system or less recording keeping such as one reading per day. Water flow meters not in place yet, but sources indicate they were in process of installing meters. CA position: Equivalent if/when records supporting the operating parameters requirement consistent with the MACT are required via rule or permit.
Depainting	Depainting RK, 63.752(e)(1)-(4): (1) General - name of each chemical stripper - monthly volumes of each organic-HAP containing chemical stripper (2) Carbon adsorber: - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and - all test results, data, and calculations used in determining the overall control efficiency - the length of the rolling material balance period and all data and calculations used for determining this rolling period. - the record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered (3) Not a carbon adsorber: - name and VOC content as received and as applied - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and - all test results, data, and calculations used in determining the overall control efficiency; (4) For each type of aircraft depainted: -listing of the parts, subassemblies, and assemblies normally removed from the aircraft before depainting.	Recordkeeping requirements, 109(c) above. The information following was provided by SCAQMD: For Control Equipment: - overall control efficiency calculations are performed during initial application evaluation process - conditions are always imposed to ensure proper operation and to maintain the efficiency of the equipment Carbon Adsorbers: - flow indicator, - approved measuring device at the outlet, - outlet concentration, - airflow limits, - carbon quality, - replacement standards (based on emissions limits at the outlet or engineering calculations), - overall efficiency, - source tests to demonstrate efficiency, - daily VOC emissions, - additional source test if necessary. Thermal or Catalytic Oxidizer: - temperature measurement and recording device, - minimum temperature at the outlet or oxidation temperature in the oxidation bed, - VOC concentration at the outlet or total VOC emissions in any one calendar day, - approved VOC measuring device or additional source test. Other Incinerators (Afterburner): - temperature measurement and recording device, - minimum preheat temperature requirement, minimum temperature and retention time in the combustion chamber, destruction efficiency,	**Not equivalent unless rule is changed or permit is an acceptable mechanism. Not an exact match up of data to be monitored, but SC is probably doing equivalent monitoring. It is clear that Rule 109 does not require all these indicators and monitoring devices to record and keep a record of what is being monitored. 109 only requires records of coatings used. Same issues as in Controlled RK for Primers & Topcoats, above.** CA position: Equivalent if/when required by rule or permit. NEHASP (4): District does not require RK for each type of aircraft, part, subassemblies, etc. CA requested EPA explain the purpose and determine if the RK is necessary. We suspect this RK requirement is tied to an exemption regarding the number of aircraft, 63.746(a) & (b); 63.752(e)(4); 63.745(g)(4). If the district does not have similar exemptions the RK should not apply. **Records of parts and subassemblies removed before depainting are required by MACT to make sure that the source is not cheating on the number of aircraft depainted by disassembling them instead.** CA position: Equivalent if/when records supporting the monitoring requirements consistent with the MACT are required via rule or permit.

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
		- VOC concentration or total VOC emissions in any one calendar day, flow rate, - approved VOC measuring device or additional source test.	
Depainting: Nonchemical based equipment RK	Depainting Nonchemical based equipment RK, 63.752(e)(5)(i): - name and types of nonchemical based equipment (dry blasting) and malfunction information including date, description, etc.	Recordkeeping requirements, 109(c) above. The following information was provided by SCAQMD: Dry Particulate or HEPA filters: - installation of mechanical gauge, - static pressure differential across the filter(s), - dust collection discharged requirements (closed container only), - thickness of filters, - total VOC emissions in any one day, and - MSDS. Waterwash system: - water curtain completely covering the exhaust section of the booth, - MSDS, - VOC emissions in any one day.	**Not equivalent unless rule is changed or permit is acceptable mechanism.** CA position: Equivalent if/when records supporting the monitoring requirements consistent with the MACT are required via rule or permit.
Depainting: Nonchemical based equipment; Malfunction RK	Depainting Nonchemical based equipment; Malfunction RK 63.752(e)(5)(ii): - nonchemical method or technique that malfunctioned - date of malfunction - description of malfunction - method used to depaint during malfunction - dates methods were begun and discontinued - date malfunction corrected	Requirements are imposed by AQMD's Hearing board on a case-by-case scenario, 430 & 517. Unless permitted to use chemical strippers, a facility will be prohibited to use any other method of depainting during a breakdown. A facility while experiencing a breakdown must provide the AQMD's Hearing Board with necessary information. required to obtain an emergency variance. This includes all information required by EPA.	**Not equivalent unless rule is changed or permit is acceptable mechanism. Variances at issue.** CA position: Equivalent substitute CA believes their breakdown rule covers EPA's malfunctions.
Depainting: Spot stripping and decal removal RK	Spot stripping and Decal Removal, 63.752(e)(6): - weight of organic HAP - annual average weight of organic HAP used per aircraft - annual number of aircraft stripped, - all data and calculations.	Recordkeeping requirements, 109(c) above.	**Records needed to insure compliance with the depainting emission standard 26 gallons/aircraft. SC says that they do not do spot stripping or decal removal, but if they ever do, they could achieve equivalency by adding these records by permit or rule change.** CA position: Equivalent if/when district requires, via rule or permit, records of stripper usage and VHAP

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
			content and records of the number and type of aircrafts stripped.
Depainting: Inorganic HAP RK	Dry particulate (two stage) or HEPA Filters, 63.752(e)(7): - pressure drop across the operating system once per shift during operation - acceptable limit(s) of the pressure drop specified by the filter or the booth manufacturer or locally prepared operating procedure Water wash: -water flow rate through the operating system once each shift during operation - acceptable limit(s) of the water flow rate specified by the filter or the booth manufacturer or locally prepared operating procedure	The following information was provided by SCAQMD: Dry Particulate or HEPA filters: - installation of mechanical gauge, - static pressure differential across the filter(s), - dust collection discharged requirements (closed container only), - thickness of filters, - total VOC emissions in any one day, and - MSDS. Waterwash system: - water curtain completely covering the exhaust section of the booth, - MSDS, - VOC emissions in any one day.	**Not equivalent unless rule is changed or permit is acceptable mechanism.** CA position Equivalent if/when records are reqd to be kept consistent with the monitors reqd under the MACT via rule or permit. AQMD requires applicant to submit manufacturer's data stating the proper operating pressure drop or proper waterflow rate. Permits are granted with appropriate conditions based on the submitted data. AQMD does not require continuous recording of pressure drop or water flow rate. Pressure drop or water flow rate recording for each shift is burdensome and excessive. Equivalent compliance assurance can be demonstrated using other methods such as installation of an alarm system or less recording keeping such as one reading per day.
Chemical Milling Maskant Uncontrolled RK	Chemical Milling Maskant Uncontrolled, 63.752(f)(1): - mass of organic HAP emitted per unit volume of chemical milling maskant as applied (less water) (H_i) and the mass of VOC emitted per unit volume of chemical milling maskant as applied (less water and exempt solvents) (G_i) for each chemical milling maskant formulation used each month (as determined by the procedures specified in § 63.750(k) and (m)); - all data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_i and G_i; and - the volume (gal) of each chemical milling maskant formulation used each month.	Recordkeeping requirements, 109(c) above.	**Equivalent if/when VHAP content records are required via rule or permit.**
Chemical Milling Maskant Uncontrolled; Averaging RK	Chemical Milling Maskant Uncontrolled; Averaging, 63.752(f)(2): - mass of organic HAP emitted per unit volume of chemical milling maskant as applied (less water) (H_i) and the mass of VOC emitted per unit volume of chemical milling maskant as applied (less water and exempt solvents) (G_i) for each chemical milling maskant formulation used each month (as determined by the procedures specified in § 63.750(k) and (m)); - all data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_i and G_i; and - the volume (gal) of each chemical milling maskant	Recordkeeping requirements, 109(c) above.	**Equivalent+.** Rule 108 allows averaging with 20% reductions in emissions. No source has elected to do averaging at this time.

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	formulation used each month		
Chemical Milling Maskant: Carbon adsorber RK	Carbon adsorber RK, 63.752(f)(3): -overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency - all data and calculations used for determining this rolling period - record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered Nonregenerative carbon adsorbers: - the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g) - all test results, data, and calculations used in determining the overall control efficiency - the record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance	Recordkeeping requirements, 109(c) above. The following information was provided by SCAQMD: For Control Equipment: - overall control efficiency calculations are performed during initial application evaluation process - conditions are always imposed to ensure proper operation and to maintain the efficiency of the equipment Carbon Adsorbers: - flow indicator, - approved measuring device at the outlet, - outlet concentration, - airflow limits, - carbon quality, - replacement standards (based on emissions limits at the outlet or engineering calculations), - overall efficiency, - source tests to demonstrate efficiency, - daily VOC emissions, - additional source test if necessary. Thermal or Catalytic Oxidizer: - temperature measurement and recording device, - minimum temperature at the outlet or oxidation temperature in the oxidation bed, - VOC concentration at the outlet or total VOC emissions in any one calendar day, - approved VOC measuring device or additional source test. Other Incinerators (Afterburner): - temperature measurement and recording device, - minimum preheat temperature requirement, minimum temperature and retention time in the combustion chamber, destruction efficiency, - VOC concentration or total VOC emissions in any one calendar day, flow rate, - approved VOC measuring device or additional source test.	**Not equivalent unless rule is changed or permit is an acceptable mechanism. See discussion above on control devices.** CA position equivalent if/when calculation records are maintained consistent with the MACT by rule or permit. AQMD requires applicants to submit information necessary to perform a complete engineering evaluation (including data, calculations, manufacturer performance guarantees, etc.) AQMD reviews and archives this information for future use and reference. AQMD, also requires submittal of any subsequent source test results. Enforceable conditions are imposed to ensure compliance at any time. AQMD requires applicants to submit information necessary to perform a complete engineering evaluation (including data, calculations, manufacturer performance guarantees, etc.) AQMD reviews and archives this information for future use and reference. AQMD, also requires submittal of any subsequent source test results. Enforceable conditions are imposed to ensure compliance at any time.
Chemical Milling Maskant: Other than a carbon adsorber RK	RK for control other than a carbon adsorber, 63.752(f)(4): - overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) - all test results, data, and calculations used in determining the overall control efficiency;	Recordkeeping requirements, 109(c) above. The following information was provided by SCAQMD: For Control Equipment: - overall control efficiency calculations are performed during	**Not equivalent unless rule is changed or permit is an acceptable mechanism. Same discussion of control devices as above.** CA position: Equivalent if/when records supporting the

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	other than a catalytic incinerator: - continuous records of the firebox temperature recorded under § 63.751(b)(9) - all calculated 3-hour averages of the firebox temperature catalytic incinerator: - continuous records of the temperature recorded under § 63.751(b)(10) and all calculated 3-hour averages of the recorded temperatures.	initial application evaluation process - conditions are always imposed to ensure proper operation and to maintain the efficiency of the equipment Thermal or Catalytic Oxidizer: - temperature measurement and recording device, - minimum temperature at the outlet or oxidation temperature in the oxidation bed, - VOC concentration at the outlet or total VOC emissions in any one calendar day, - approved VOC measuring device or additional source test. Other Incinerators (Afterburner): - temperature measurement and recording device, - minimum preheat temperature requirement, minimum temperature and retention time in the combustion chamber, destruction efficiency, - VOC concentration or total VOC emissions in any one calendar day, flow rate, - approved VOC measuring device or additional source test.	monitoring requirement consistent with the MACT are required via rule or permit.
Startup, Shutdown, and Malfunction (SSM) Plan General RK	Startup, Shutdown, and Malfunction Plan Requirement, 63.6(e)(3): -minimize emissions; -correct malfunctions as soon as practicable; and -reduce the reporting burden associated with periods of startup, shutdown, and malfunction -operate and maintain in accordance with the procedures specified in the startup, shutdown, and malfunction plan -keep records that demonstrate procedures specified in the plan were followed - keep the written startup, shutdown, and malfunction plan on record for 5 years The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan: -does not address a startup, shutdown, or malfunction event that has occurred; -fails to minimize emissions; or -does not provide adequate procedures for correcting malfunctioning process. If the startup, shutdown, and malfunction plan fails, revise the startup, shutdown, and malfunction plan within 45 days after the event.	SSM RK is equivalent to district reporting and RK requirement included in breakdown provisions, 430, See SSM under Reporting below.	**Equivalent, but see SSM discussion generally. With most SC sources, there won't be any excess emissions during startup and shutdown permitted, so that is the plan: No excess emissions. However, no malfunction plan is required.** **CA believes breakdown rules requirement are an acceptable substitute for the MACT malfunction plan requirement.**
Startup,	Depainting Startup, shutdown, and malfunction plan,	same as above	**Equivalent.**

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
shutdown, and malfunction plan Depainting RK	63.743(b): Dry particulate filter systems operated per the manufacturer's instructions are exempt from a startup, ~~and~~ shutdown, and malfunction plan. A startup, ~~and~~ shutdown, and malfunction plan shall be prepared for facilities using locally prepared operating procedures. In addition to the information required in § 63.6 (reporting above), this plan shall also include the following provisions: (1) operation and maintenance criteria for each air pollution control device or equipment and shall include a standardized checklist to document operation and maintenance of the equipment; (2) procedure for identifying malfunctions and for reporting them immediately to supervisory personnel; and (3) ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.		**Same as above.**

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
Reporting (RPT) 63.753			
General reporting requirements Initial Notification Title V Permit	General reporting requirements, 63.753(a): Notification requirements: 63.9(a) thru (e) & (h) thru (j) Recordkeeping and reporting requirements: 63.10(a), (b), (d), (f) Initial notification requirements for new or reconstructed sources in 63.9(b)(3) thru (5) don't apply. A title V or part 70 application may be used instead of the initial requirements required under 63.9(b)(2) under certain conditions (approved state permit program and EPA delegation). Refer to initial notification below. For requests to adjust a particular time period or postmark deadline under this subpart, the Administrator will respond within 30 calendar days.	Existing source initial notification is due 9-1-97. District Title V permit program may not be soon enough to use the Title V application as an initial notification.	**Not equivalent unless Title V application is timely submitted. Initial notices have already been sent in pursuant to MACT. Close enough for most aerospace sources.** Check district Title V application program timing for Aerospace facilities.
General reporting requirements Performance Test Progress Rpt. Periodic Rpt.	General reporting requirements, 63.10(d): Performance tests: 60th day following the completion of the performance test as part of the Notification of Compliance. Progress reports: Only if it is a condition of receiving an extension of compliance Periodic startup, shutdown, and malfunction reports. Only if a startup, shutdown, or malfunction occurred during the reporting period. The report shall be delivered or postmarked by the 30th day following the end of each calendar half, July 1.		**Not equivalent unless rule is changed or permit is an acceptable mechanism. Equivalent if/when pre-existing tests are approved, pursuant to a protocol. CA believes that Breakdown reports should suffice for this requirement.** CA position: Equivalent if/when district requires submittal of performance test results consistent with MACT. Equivalent Substitute District breakdown rule require a written report within 7 days.
Initial Notification	Initial Notification, 63.9: startup before 9-1-05: 9-1-97 startup after 9-1-95: startup or 9-1-97, whichever is earlier - name & address of owner/operator - address of facility (physical location) - NESHAP - description of nature, size, design, method of operation, design capacity, id of each HAP	NSR, 1303	**Same as above. Not equivalent unless Title V application is timely submitted.**
Initial Statement of Compliance Reporting	Initial Statement of Compliance, 63.9: startup before 9-1-05: 5-1-99 or 60 days after performance test, whichever is earlier startup after 9-1-95: 240 days after initial startup or	District rules require sources to be in compliance upon startup. exception: coatings with future compliance dates	**Equivalent.** **Initial compliance inspection assures compliance upon startup.**

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	60 days after performance test, whichever i s earlier		
Performance test reporting	Performance test reporting, 63.7: Conduct 180 days after compliance date new startup before 9-1-95: 9-1-95 + 180 days new startup after 9-1-95: startup + 180 days existing: 9-1-98 + 180 days Notify 60 days prior to test Report 60 days after test	Provisions for Sampling & Testing, 217 SCAQMD Source Test Manual	**Not equivalent unless rule is changed or permit and Source Test Manual are acceptable mechanisms. Equivalent if/when pre-existing test are approved. Otherwise, these deadlines must be met.** CA position: Equivalent if/when district requires submittal of test reports consistent with the MACT.
Monitoring requirements	Monitoring plan, 63.8: Submit site specific test plan 60 days before test Report 60 days after test	Same as above.	**Not equivalent unless rule is changed or permit is acceptable mechanism.** CA position: Equivalent if/when test plan required consistent with MACT. except if pre-existing test used. For pre-existing tests, Equivalent if/when pre-existing test are approved via protocol established with District/ARB/Region 9
Notification of Compliance Status	Notification of Compliance Status (NCS), 63.753: Report by the close of business 60 days after the compliance demonstration. The report shall include: (i) Information detailing whether the source has operated within the specified ranges of its designated operating parameters. (ii) For each coating line, where averaging will be used along with the types and quantities of coatings the facility expects to use in the first year of operation. Averaging schemes shall be approved by the Administrator or delegated State authority and shall be included as part of the facility's title V or part 70 permit.		**Equivalent.** **Initial compliance inspection assures compliance. Six month reports will report whether operated with proper ranges.**
Startup, Shutdown, and Malfunction reporting	Startup, shutdown, malfunction reporting, 63.6(e): -report within 2 working days -followed by a letter within 7 working days after the end of the event Additional reporting; See RK above: - General RK, 63.10(b)(2) - Depainting SSM RK, 63.752(e)(5)(ii)	Source must operate to permit conditions, 203. Malfunction is a breakdown. Breakdown provisions, 430: (b) Requirements : 1. A person shall report within one hour -identify the time, -specific location, -equipment involved, -responsible party to contact for further information,	**Equivalent. See discussion of breakdowns generally. Breakdowns must be reported more quickly, etc.**

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
		-the causes of the breakdown, -the estimated time for repairs. 2. Within seven calendar days after a reported breakdown has been corrected, but no later than thirty calendar days submit a written Breakdown Emissions Report to the Executive Officer which includes: (A) an identification of the equipment involved in causing, or suspected of having caused, or having been affected by the breakdown; (B) the duration of the breakdown; (C) the date of correction and information demonstrating that compliance is achieved; (D) an identification of the types of emissions, if any, resulting from the breakdown; (E) a quantification of the excess emissions, if any, resulting from the breakdown and the basis used to quantify the emissions; (F) information substantiating that the breakdown did not result from operator error, neglect or improper operation or maintenance procedures; (G) information substantiating that steps were immediately taken to correct the condition causing the breakdown, and to minimize the emissions, if any, resulting from the breakdown; (H) a description of the corrective measures undertaken and/or to be undertaken to avoid such a breakdown in the future; and (I) pictures of the equipment which failed, if available.	
		(b)(3)(A): When a breakdown is NOT a violation: (A) Any rule or permit condition not specified in subparagraph (b)(3)(B) [does not include XI, includes permit conditions] shall be inapplicable to a violation directly caused by a breakdown, provided that all of the following criteria are met: (i) the owner or operator meets the reporting requirements specified in paragraph (b)(1) and (b)(2); (ii) the breakdown did not result from operator error, neglect, or improper operation or maintenance procedures; (iii) steps are immediately taken to correct conditions leading to the breakdown, and emissions caused by the breakdown are mitigated to the maximum extent feasible; and (iv) the equipment in violation is shut down by the end of an operating cycle, or within twenty-four hours from the time the owner or operator knew or reasonably should have known of the breakdown, whichever is sooner. For the purpose of this rule, an operating cycle means a	

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
		period of time within which a round of regularly recurring events is completed, and can not be stopped without the risk of endangering public safety or health, causing material damage to the equipment or product, or can not be stopped due to technical constraints. Economic reasons alone will not be sufficient to extend this time period. The operating cycle includes batch processes that may start and finish several times within a twenty-four hour period, in which case each start to finish interval is considered a complete cycle. Minimum reporting requirements, H&SC 42706.	
Reporting requirements: Cleaning operations	Cleaning operations RPT, 63.753(b): (1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify: (i) Any instance where a noncompliant cleaning solvent is used for a nonexempt hand-wipe cleaning operation; (ii) A list of any new cleaning solvents used for hand-wipe cleaning in the previous 6 months and, as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in § 63.744(b)(1) (aqueous or hydrocarbon); (iii) Any instance where a noncompliant spray gun cleaning method is used; (iv) Any instance where a leaking enclosed spray gun cleaner remains unrepaired and in use for more than 15 days; and (v) If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.	(i) District does not allow the use of noncompliant cleaning solvents. (ii) There is no incentive for sources to use approved aqueous or hydrocarbon cleaners. The NESHAP exempts sources that use these solvent from storage requirements, but the district requires all sources to comply with storage requirements. We believe the RK & RPT requirements are not necessary. (iii) District does not allow the use of not compliant spray gun cleaning methods. (iv) The compliant certification can be included in semiannual report for all requirements instead of for specific parts of the NESHAP. Reporting qualification acceptance testing on coatings with future compliance dates every 6 months, 1124(j).	**Not equivalent unless rule is changed or permit is an acceptable mechanism. These instances of non-compliance are the sorts of information that will be required by the six-month and annual Title V reports. Sources should be required to record and report their non-compliance. This level of detail is appropriate.** CA position: Equivalent i/when district incorporates requirements to report at least every 6 months any incidences where the source did not comply with a rule or permit requirement and excess emissions or a exceedance of a permit parameter resulted.
Primer and topcoats	Primer and topcoats RPT, 63.753(c): (1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify: (i) For primers and topcoats where compliance is not being achieved through the use of averaging or a control device, each value of H_i and G_i, as recorded under § 63.752(c)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c); (ii) For primers and topcoats where compliance is being achieved through the use of averaging, each value of H_a and G_a, as recorded under § 63.752(c)(4)(i), that exceeds the applicable organic HAP or VOC content limit specified in	If RK is equivalent the RPT information is also equivalent.	**Same as immediately above. Not equivalent unless rule is changed or permit is an acceptable mechanism. This level of detail is appropriate.** Determine equivalent after review RK. CA position: Equivalent i/when district incorporates requirements to report at least every 6 months any incidences where the source did not comply with a rule or permit requirement and excess emissions or a exceedance of a permit parameter resulted.

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	§ 63.745(c); (iii) If incinerators are used to comply with the standards, all periods when the 3-hour average combustion temperature(s) is (are) less than the average combustion temperature(s) established under § 63.751(b)(11) or (12) during the most recent performance test during which compliance was demonstrated; (iv) If a carbon adsorber is used; (A) Each rolling period when the overall control efficiency of the control system is calculated to be less than 81 percent, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or, (B) For nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values. (v) For control devices other than an incinerator or carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated; (vi) All times when a primer or topcoat application operation was not immediately shut down when the pressure drop across a dry particulate filter or HEPA filter system, or the water flow rate through a waterwash system, as appropriate, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures; (vii) If the operations have been in compliance for the semiannual period, a statement that the operations have been in compliance with the applicable standards; and, (2) Annual reports beginning 12 months after the date of the notification of compliance status listing the number of times the pressure drop or water flow rate for each dry filter or waterwash system, as applicable, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures.		
Depainting RPT	Depainting RPT, 63.753(d): (1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify: (i) Any 24-hour period where organic HAP were emitted from the depainting of aerospace vehicles, other than from the exempt operations listed in § 63.746(a), (b)(3), and (b)(5). (ii) Any new chemical strippers used at the facility during the reporting period;	If RK is equivalent the RPT information is also equivalent.	**Same as immediately above. Not equivalent unless rule is changed or permit is an acceptable mechanism. This level of detail is appropriate.** CA position: Equivalent if/when district requirement consistent with the MACT.

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	(iii) The organic HAP content of these new chemical strippers; (iv) For each chemical stripper that undergoes reformulation, its organic HAP content; (v) Any new nonchemical depainting technique in use at the facility since the notification of compliance status or any subsequent semiannual report was filed; (vi) For periods of malfunctions: (A) The nonchemical method or technique that malfunctioned; (B) The date that the malfunction occurred; (C) A description of the malfunction; (D) The methods used to depaint aerospace vehicles during the malfunction period; (E) The dates that these methods were begun and discontinued; and (F) The date that the malfunction was corrected; (vii) All periods where a nonchemical depainting operation subject to § 63.746(b)(2) and (b)(4) for the control of inorganic HAP emissions was not immediately shut down when the pressure drop or water flow rate was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operational procedures; (viii) A list of new and discontinued aircraft models depainted at the facility over the last 6 months and a list of the parts normally removed for depainting for each new aircraft model being depainted; and (ix) If the depainting operation has been in compliance for the semiannual period, a statement signed by a responsible company official that the operation was in compliance with the applicable standards. (2) Annual reports occurring every 12 months from the date of the notification of compliance status that identify: (i) The average volume per aircraft of organic HAP-containing chemical strippers used for spot stripping and decal removal operations if it exceeds the limits specified in § 63.746(b)(3); and (ii) The number of times the pressure drop limit(s) for each filter system or the number of times the water flow rate limit(s) for each waterwash system were outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures. (3) Where a control device is used to control organic HAP emissions, semiannual reports that identify: (i) If a carbon adsorber is used, (A) Each rolling period when the overall control efficiency of the control system is calculated to be less than 81 percent for existing systems or less than 95 percent for		Malfunctions may be covered by the Breakdown Rule 430 Some of this was covered in earlier discussions CA position: Disagree with requirements to record all parts removed - -

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	new systems, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or, (B) For nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values. (ii) For control devices other than a carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated; (iii) Descriptions of any control devices currently in use that were not listed in the notification of compliance status or any subsequent report.		
Chemical milling maskants RPT	Chemical milling maskants, 63.753(e): Submit semiannual reports occurring every 6 months from the date of the notification of compliance status that identify: (1) For chemical milling maskants where compliance is not being achieved through the use of averaging or a control device, each value of H_i and G_i, as recorded under § 63.752(f)(1)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c); (2) For chemical milling maskants where compliance is being achieved through the use of averaging, each value of H_a and G_a, as recorded under § 63.752(f)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c); (3) Where a control device is used, (i) If incinerators are used to comply with the standards, all periods when the 3-hour average combustion temperature(s) is (are) less than the average combustion temperature(s) established under § 63.751(b)(11) or (12) during the most recent performance test during which compliance was demonstrated; (ii) If a carbon adsorber is used, (A) Each rolling period when the overall control efficiency of the control system is calculated to be less than 81 percent, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or, (B) For nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values. (iii) For control devices other than an incinerator or carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated; (4) All chemical milling maskants currently in use	If RK is equivalent the RPT information is also equivalent.	**Same as immediately above. Not equivalent unless rule is changed or permit is acceptable mechanism. This information should be in the permit.** CA position: Equivalent i/when district incorporates requirements to report at least every 6 months any incidences where the source did not comply with a rule or permit requirement and excess emissions or a exceedance of a permit parameter resulted.

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	that were not listed in the notification of compliance status or any other subsequent semiannual report; (5) Descriptions of any control devices currently in use that were not listed in the notification of compliance status or any subsequent report; and (6) If the operations have been in compliance for the semiannual period, a statement that the chemical milling maskant application operation has been in compliance with the applicable standards.		
Construction and reconstruction: Depainting Notification	Replaces advanced notification, review, & approval, 63.743(a)(10): Existing primer or topcoat application operations and depainting operations who construct or reconstruct a spray booth or hangar that is not a major source of inorganics notify the Administrator of such construction or reconstruction on an annual basis on or before March 1 of each year, Submit an application before startup but no later than 60 days after the effective date (9-1-95), 63.5(d): -The address (i.e., physical location) or proposed address of the source; -An identification of the relevant standard that is the basis of the application; - The expected commencement date of the construction or reconstruction; -The expected completion date of the construction or reconstruction; -The anticipated date of (initial) startup of the source; -The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance	The district has delegation of the Title V permit program. [Reg. XXX Title V Permit Requirements, 3000-3006. No person shall build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants without first obtaining a written authorization for such construction from the Executive Officer . . . [201] A modification described in 1302 is any physical change in equipment, method of operation or an addition . . . A modification will trigger Reg. XIII and a notification to the district. Title V Permit Revisions, 3005. Toxic NSR, 1401 Control of Toxic Air Contaminants, 1402	**Equivalent+.** District rule is more stringent.
Permit	Title V permit requirements	No person shall build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants without firs obtaining a written authorization for such construction from the Executive Officer . . . [201]	**Equivalent.**

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
		Regulation XXX	
Permit; Exemptions	Refer to Applicability and Exemptions section.	Equipment not requiring a written permit pursuant to Regulation II, 219: A written permit or registration shall not be required for the following equipment unless the equipment, or Rule 1401, or the emission limitation requirements of the state Air Toxic Control Measure (ATCM) or the National Emission Standards For Hazardous Air Pollutants (NESHAP), or unless the Executive Officer determines that the equipment may not operate in compliance with all applicable District Rules and Regulations. Once the Executive Officer makes such a determination and written notification is given to the equipment owner or operator, the equipment shall thereafter be subject to Rules 201 and 203 for non-RECLAIM sources and Rule 2006 for RECLAIM sources. (l) Miscellaneous Process Equipment: 10. Unheated, non-conveyorized, cleaning or coating equipment: (A) With an open surface area of 1.0 square meter (10.8 square feet) or less and an internal volume of 350 liters (92.5 gallons) or less, having an organic solvent loss of 3 gallons per day or less, or (B) Using only organic solvents with an initial boiling point of 150 ^{o}C (302 ^{o}F) or greater, or (C) Using materials with a VOC content of 2 percent (20 g/L) or less by volume. This exemption does not include control enclosures, or any equipment with a capacity of more than 7.6 liters (2 gallons) or any equipment, which was designed as a solvent cleaning and drying machine, using solvents that are greater than 5 percent by weight of perchloroethylene, methylene chloride, carbon tetrachloride, chloroform, 1,1,1-trichloroethane, trichloroethylene, or any combination thereof.	**Equivalent.**
		16. Coating or laminating equipment operated outside control enclosures such as air, airless, air-assisted airless, high volume low pressure (HVLP), and electrostatic spray equipment, and roller coaters, dip coaters, vacuum coaters and flow coaters and associated drying equipment which must be exempt pursuant to paragraph (b)(2), provided that: (A) The VOC emissions from such equipment are only three (3) pounds per day or less; or (B) The total amount of coatings, adhesives and/or, organic solvent (including cleanup) used in such equipment are six (6) gallons per day or less of UV or electron beam type; or (C) The total amount of solvent type coating and/or adhesive used	

Limit	Recordkeeping and Reporting (RR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
		is one (1) gallon per day or less, including cleanup solvent; or (D) The total amount of water reducible or water based type coating and/or adhesive used is three (3) gallons per day or less, including cleanup solvent and excluding water used as a reducer or for cleanup; or (E) The total amount of polyester resin or gel coat type material used is one (1) gallon per day or less, including cleanup solvent.	
Operating plan; Alternative control device	Compliance dates and determinations, 63.749(b): General. Each facility subject to this subpart shall be considered in noncompliance if the owner or operator fails to submit a startup, shutdown, and malfunction ~~operation and maintenance~~ plan as required by § 63.743(b) or uses a control device other than one specified in this subpart that has not been approved by the Administrator, as required by § 63.743(c).	District rules require facilities to obtain a permit prior to operating. Operation plans are included in the application to construct. Performance tests are conducted and site specific conditions are included in the permit.	**Equivalent**.

[1] Proposed amendments published in the Federal Register on October 29, 1996, 61FR55841. Underlined text represents amendments that are being added.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Applicability	decorative chrome, hard chrome and/or chromic acid anodizing facilities	chromium electroplating or chromium anodizing tank at facilities performing hard chromium electroplating, decorative chromium electroplating, or chromium anodizing	Equivalent if/when - trivalent chrome operations are subject to MRR consistent with NESHAP
		exempts research and laboratory operations	District rule more stringent
Emission Limits	**small, hard:** either 95 percent or more emission reduction **or** emissions less than 0.15 mg/amp-hr **small, decorative:** either 95 percent or more emission reduction **or** emissions less than 0.05 mg/amp-hr **small, anodizing:** either 95 percent or more emission reduction **or** emissions less than 0.15 mg/amp-hr	**small, hard:** 0.03 mg/dscm (existing) **and** 0.015 mg/dscm (new) **small, decorative:** 0.01 mg/dscm or 45 dynes/cm surface tension of wetting agent **small, anodizing:** 0.01 mg/dscm or 45 dynes/cm surface tension of wetting agent	Equivalent if/when standard for new, small hard plater is 0.03 mg/amp-hr and if/when the decorative chrome and anodizing requirements are amended to 0.01 mg/dscm or 45 dynes/cm surface tension Required control equipment is the same; many sources in California have additional HEPA filters in order to meet risk level requirements of toxic NSR and avoid AB 2588 notification requirements

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Emission Limits (Cont.)	**medium, hard:** either 99 percent or more emission reduction **or** emissions less than 0.03 mg/amp-hr **medium, decorative:** either 99 percent or more emission reduction **or** emissions less than 0.03 mg/amp-hr **medium, anodizing:** either 99 percent or more emission reduction **or** emissions less than 0.03 mg/amp-hr		Equivalent if/when the NESHAP decorative and anodizing limits are required by rule and if /when the NESHAP cut-off limit for small and large is incorporated in the ATCM small, medium, and large plater definition.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Emission Limits (Cont.)	**large, hard:** medium: either 99.8 percent or more emission reduction **or** emissions less than 0.006 mg/amp-hr **large, decorative:** medium: either 99.8 percent or more emission reduction **or** emissions less than 0.006 mg/amp-hr **large, anodizing:** medium: either 99.8 percent or more emission reduction **or** emissions less than 0.006 mg/amp-hr	**large, hard:** 0.015 mg/dscm (existing) 0.015 mg/dscm (new) **large, decorative:** 0.01 mg/dscm or 45 dynes/cm surface tension of wetting agent **large, anodizing:** 0.01 mg/dscm or 45 dynes/cm surface tension of wetting agent	Equivalent if/when NESHAP decorative and anodizing limits are required by rule or permit.
Emission Limitation Applicability	Emission limits always applies however, enforcement action can be waived if district agrees a breakdown condition exists.	The emission limitations do not apply during periods of malfunction.	Equivalent pending resolution of overall breakdown/malfunction issue.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Work Practice Standards-Level 2	install a non-resettable totalizing ampere-hour meter on each tank	not required	Equivalent (+) District requires additional monitoring to support form of the standard.
		visually inspect device to ensure there is proper drainage, no unusual chromic acid buildup on the pads, and no evidence of chemical attack that effects the structural integrity of the device 1/quarter for composite mesh-pad system, packed-bed scrubber, PBS/CMP system, fiber-bed mist eliminator	Equivalent if/when work practice provisions consistent with the NESHAP are required via rule or permit. [Note: Some minor wording changes that have been approved by Region 9]
		visually inspect back portion of the control device to ensure that there in no unusual breakthrough of chromic acid mist 1/quarter for composite mesh-pad system, packed-bed scrubber, PBS/CMP system	Equivalent if/when work practice provisions consistent with the NESHAP are required via rule or permit.
		visually inspect ductwork form tank to the control device to ensure there are no leaks 1/quarter for composite mesh-pad system, packed-bed scrubber, PBS/CMP system, fiber-bed mist eliminator	Equivalent if/when work practice provisions consistent with the NESHAP are required via rule or permit. [Note: Have added a definition of leak to the rule.]
		perform washdown of the composite mesh-pads, PBS/CMP, fiber-bed mist eliminator in accordance with manufacturers recommendations	Equivalent if/when work practice provisions consistent with the NESHAP are required via rule or permit.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Work Practice Standards- Level 2 (Cont.)		add fresh make-up water to the top of the packed-bed whenever make-up water is added	Have not reached agreement: Options: 1. ARB - Disagree with necessity of this requirement for existing units that meet the applicable emission limits or for existing units that have installed beyond MACT controls. 2. EPA - Equivalent if/when permit or rule requires fresh make-up water to be added to the top of the scrubber or there is an additional control system such as a HEPA filter that serves as a polishing system in place of the top feed requirement. 3. ARB/SCAQMD - Equivalent Substitute- Chrome sources are subject to AB 2588 and toxic NSR (SC 1401) requirements that have resulted in risk reductions beyond required by the ATCM or MACT. The additional reductions required via these programs should be considered a substitute for the top-fed make-up water requirement.
Emissions Monitoring	implicitly requires a source test to ensure that the emissions limitation is met	requires a performance test	Equivalent if/when existing source tests are approved via protocol and all sources that need testing have an approved test.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Continuous Compliance Monitoring		- daily monitor and record the pressure drop across the system to within ± one inch of water for composite mesh pad, packed-bed scrubber, and CMP/PBS and across both the fiber-bed mist eliminator and the control device upstream of the fiber-bed mist eliminator - daily monitor and record the inlet velocity pressure to within ten percent for the packed-bed scrubber	**Have not reached agreement** ARB Proposal - continuous monitoring of Δp, record value once per week, provide flexibility to district to increase or decrease frequency based on compelling engineering evidence. EPA Proposal- continuous monitoring of Δp, record value once per week, with gauge in view, and report all exceedances Possible Compromise continuous monitoring of Δp, record daily, provide quick and easy process for district to increase or decrease frequency based on compelling engineering evidence **Have not reached agreement** ARB Proposal - -continuous monitoring of inlet velocity pressure (ivp), record value once per week, provide flexibility to district to increase or decrease frequency based on compelling engineering evidence -question utility of requirement when the tanks requiring ivp monitoring are manifolded to a single scrubber. EPA Proposal- continuous monitoring of inlet velocity pressure (ivp), record value once per week, with gauge in view, and report all exceedances

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Continuous Compliance Monitoring (Cont.)		- monitor and record the surface tension of the bath once every four hours for wetting agent or combination wetting agent/foam blanket fume suppressants	**Have not reached agreement** ARB Proposal - monitor surface tension once a week, provide flexibility to district to increase or decrease frequency based on compelling engineering evidence. EPA Proposal - Adopt the MACT requirements Compromise Proposal - measure and record surface tension once a day, provide quick and easy process for district to increase or decrease frequency based on compelling engineering evidence
		- hourly monitoring and recording of the foam blanket thickness	**Have not reached agreement** ARB Proposal - monitor foam blanket thickness hourly, provide flexibility to district to increase or decrease frequency based on compelling engineering evidence. EPA Proposal - Adopt the MACT requirements Compromise Proposal - as above U.S. EPA will consider foam plus polyballs in lieu of 1" foam blanket thickness with a visual inspection of coverage rather than a measurement of thickness

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Control Device not listed in NESHAP	any controls that meet emission limitation	must submit a description of the device, test results verifying the performance of the device using Method 306 or CARB Method 425, a copy of the O&M plan, and operating parameters that will be monitored to establish continuous compliance	**U.S. EPA will consider a direct to final to allow new technologies, HEPA filters, and merlin hoods** ARB Proposal - add these devices to ATCM/district rule with appropriate monitoring and recordkeeping requirements. Provide approval process in rule to allow for expeditious review and approval of new technologies.
Performance test requirements and test methods § 63.344		Requires 33 to 66 micrograms of catch in the sampling train for colorimetric analysis. Requires a catch that is 5 to 10 times the minimum detection limit of the analytical method for AAGF and ICPCR. Specifies a minimum of 3 separate runs.	Equivalent - if/when proposed Method 425 becomes board-approved. Equivalent - if/when proposed Method 425 becomes board-approved. Equivalent - for Method 425. Method 306 either needs to be updated to include a requirement for three runs or the rule needs to include a requirement for three runs or not allow Method 306.
Provisions for new and reconstructed sources § 63.345	Sources subject to Rule 201 which requires that a source obtain a permit to construct anything that may issue air contaminants.	Requires notification of construction or reconstruction.	Equivalent if/when add provision to ATCM/district rule/permit requiring preconstruction review for new and modified sources.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Recordkeeping Requirements § 63.346		Identification of each period of excess emissions that occurs during malfunctions of the process, add-on control, or monitoring equipment.	Equivalent pending resolution of overall breakdown/malfunction issue.
		Identification of each period of excess emissions that occurs during other than malfunctions of the process, add-on control, or monitoring equipment.	Equivalent if/when provision added to ATCM/district rule/permit.
		Total process operating time of the source.	Equivalent substitute total amp-hour for total process operating time.
		If actual rectifier capacity is used to determine facility size, records of actual cumulative rectifier capacity of hard chrome tanks expended each month, and the total expended to date for the reporting period.	Equivalent if/when required by rule or permit. (Currently required by permit.)
		Records of date and time that fume suppressants are added to the bath.	Equivalent if/when required by rule or permit. (Currently required by permit.)
		Records of bath components purchased with the wetting agent clearly identified as a bath constituent contained in one of the components.	Equivalent if/when required by rule or permit. (Currently required by permit.)
		Information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if a source has been granted a waiver.	Equivalent if/when conditions regarding waiver are required via rule or permit.
		All documentation supporting the required notifications and reports.	Equivalent if/when required by rule or permit.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Reporting Requirements § 63.347		**Initial Notifications** 63.47(c)	Date passed - moot.
		1. Notification of Compliance Status 63.347(e) shall include:	Equivalent if/when ATCM/district rule/permit requires compliance status notification consistent with NESHAP requirements with amendments noted below OR Equivalent if/when district inspection can substituted for the Notification of Compliance Status
		2. Applicable emission limitation and methods used to determine compliance.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for NCS, would implement via inspection checklist.
		3. If a performance test is required, the test report documenting the results.	We believe a summary of the test information documenting compliance with the standard is sufficient. The test report itself must be kept on file by the source.
		4. The type and quantity of HAPs emitted by the source in mg/dscm or mg/hr. For sources not required to conduct performance tests, the surface tension measurement.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for NCS, would implement via inspection checklist.
		5. For each monitored parameter, the specific operating parameter value or range that corresponds to compliance with the emission limit.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for NCS, would implement via inspection checklist.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Reporting Requirements § 63.347 (Cont.)		6. The methods that will be used to determine continuous compliance.	**Same as above**
		7. A description of the air pollution control technique.	**Equivalent if/when information is required via rule or permit. If district inspection can substitute for NCS, would implement via inspection checklist.**
		8. A statement that the owner/operator has completed and filed an O & M plan.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for NCS, would implement via inspection checklist.
		9. If facility size is based on actual rectifier capacity, the record to support that a facility is small.	Must submit annual cumulative amp-hrs usage
		10. A statement by the owner/operator as to whether the source has complied with this subpart.	Equivalent if/when the requirement for the statement is included in the permit rule.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Reporting Requirements § 63.347 (Cont.)		**Ongoing Compliance Status Reports for Major Sources 63.347(g)**	Equivalent if/when ATCM/district rule/permit requires compliance status reports consistent with NESHAP requirements with amendments noted below OR Equivalent if/when district inspection can substituted for the Notification of Compliance Status.
		Semi-annual Reports [except when the emission limit has been exceeded, then quarterly reports shall be submitted.]	ARB proposal--annual report/or inspection checklist. EPA proposal-- quarterly reports when the emission limit has been exceeded.
		Report Content:	
		1. Company name and address.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for CSR, would implement via inspection checklist.
		2. An identification of the operating parameter that is monitored for compliance determination.	Same as above. (Currently required by permit.)
		3. The relevant emission limitation and the operating parameter value that corresponds to compliance.	Same as above. (Currently required by permit.)

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Reporting Requirements § 63.347 (Cont.)		4. Beginning and ending dates of the reporting period.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for CSR, would implement via inspection checklist.
		5. Description of the type of process performed.	Same as above. (Currently required by permit.)
		6. Total operating time during the reporting period	Equivalent - substitute annual ampere-hour per tank for total operating time.
		7. The actual cumulative rectifier capacity for the reporting period and on a month-by-month basis, if the source is a hard plater limiting size by actual capacity.	Same as in 4. (Currently required by permit.)
		8. Summary of operating parameters, including duration of excess emissions, the duration of excess emissions expressed as a percentage of the total operating time, and a breakdown of the total excess emissions into those due to process upsets, control equipment malfunctions, other known causes, and unknown causes.	ARB proposal--A summary of any incidences of excess emissions. Report the date, duration, equipment affected, and magnitude of excess emissions for all district-approved breakdowns. Report the date, duration, equipment affected, and magnitude of excess emissions for all other incidences of excess emissions.
		9. Certification by a responsible official that work practice standards were followed according to the O & M plan for the source.	Equivalent if/when information is required via rule or permit.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Reporting Requirements § 63.347 (Cont.)		10. If the O & M plan were not followed, an explanation of the reasons and an assessment of any excess emissions that occurred as a result, and copies of reports documenting why the O & M plan was not followed.	Equivalent if/when information is required via rule or permit. If district inspection can substitute for CSR, would implement via inspection checklist.
		11. A description of any changes in monitoring, processes, or controls since the last reporting period.	Same as above. District rules require approval of any monitoring changes.
		12. Name, title, and signature of the responsible official certifying the accuracy.	Equivalent if/when information is required via rule or permit.
		13. Date of the report.	No problem
Reporting Requirements (Cont.)		**Ongoing Compliance Reports for Area Sources** 63.347(h)	Equivalent if/when ATCM/district rule/permit requires compliance status reports consistent with NESHAP requirements with amendments noted below OR Equivalent if/when district inspection can substituted for the Notification of Compliance Status.
		Annual Report	Equivalent if/when inspection report is completed or inspection checklist is completed.
Reporting Requirements (Cont.)		Report Content Same as for major	ARB Proposal: Equivalent if/when content of reports for area sources is simplified. Simple checklist including information in 1, 4, 7, 8, 9, 11, 12, 13. EPA Proposal: above plus 2,3,10

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
		Reports for Trivalent Chrome Baths	Need to simplify content of reports for trivalent Chrome sources. Question necessity of report. Equivalent if/when information is required via rule or permit --would probably be implement via inspection checklist.
		Name, title, and address of the owner or operator.	
		Address of each source.	
		A statement that subpart N is the basis of the notification.	
		Identify each applicable emission limit and compliance date for each source.	
		Brief description of each affected source.	
		A statement that a trivalent chrome process that incorporates a wetting agent will be used to comply.	
		List of bath components with wetting agent identified.	

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
General Issue: Director's Discretion	The lack of specifics in the monitoring, work practice standards, recordkeeping, reporting, and test method areas of concern mean that the district is free to determine the requirements on a case-by-case basis.	The NESHAP is prescribes specifics in every area of concern.	ARB's Proposal - Provide process in rule for approval of alternatives. Requirement would be specific for particular type of alternative (recordkeeping, reporting, monitoring, WPS, control device). Rule requirement would provide for allow U.S. EPA review ..." U.S. EPA __ days for approval or disapproval." (Number of days based type of alternative and complexity of analysis required.) Also need assurance action can be expected in set time period. "If no decision is made by U.S. EPA within __ days, the alternative is deemed approved." EPA Proposal - same as above but 120 days or develop protocol. Team suggestion that may be able to develop protocol(s) that would provide some level of delegation of the general provisions authority to approve alternative. It was suggested that a multi-agency workgroup be set up to work on this issue. CA wanted some assurance that the issue of delegating authority was not DOA before moving forward on additional work in this area.
Breakdown vs. Malfunction	Sources must comply with district breakdown rule 430	NESHAP uses the term malfunction.	Equivalency pending additional analysis of CA breakdown procedures/rules.

Note: This comparison is to the current, existing SCAQMD Rule 1169. Amendments based on 9/16/97 conference call.

Draft Chrome NESHAP Comparison 9/97			
Area of Concern	**District Rule [SCAQMD Rule 1169]**	**NESHAP**	**Differences/Comments**
Modification vs. Reconstruction	New or modified sources must comply with new source standards.	New or reconstructed sources must comply with new source MACT.	ARB proposal- Use modification in place of reconstruction. Possibly add to definition of mod a provision that exact replacements that exceed 50 % of cost are considered a modification. EPA proposal- See exact replacements that exceed 50% of cost as a possible reconstruction not covered by the term malfunction.

TECHNICAL COMMENTS ON THE PROPOSAL FOR EQUIVALENCY DEMONSTRATION OF SCAQMD RULES TO THE GASOLINE DISTRIBUTION (GD) NESHAP

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Applicability: Emission Points	<u>Bulk Gasoline Terminals</u> • Gasoline loading racks	• Gasoline liquid loading racks or organic loading racks [(d)(1)]	• Not Applicable	**Equivalent.**	
	• Gasoline storage vessels	• Not Applicable	• Above ground stationary tanks		
	• Gasoline leaks from piping system and equipment	• Vapor or liquid leaks from vapor collection system and loading racks [(d)(6)]	• Not Applicable		
	• Gasoline vapor leakage from tank trucks and railcars	• Vapor leaks from tank trucks, trailers and railroad tank cars[(b)(2)]	• Not Applicable		
	<u>Pipeline Breakout Stations</u>			**Equivalent.**	CARB has confirmed pipeline breakout stations are covered by SC Rules (SC1173/ equipment leaks; SC 466.1/valves and flanges; SC 463/storage; and SC462/loading Racks.
	• Gasoline storage vessels	• Not Applicable	• Above ground stationary tanks		
	• Gasoline equipment leaks	• Not Applicable	• Not Applicable		
Applicability: Pollutants	HAP, except TOC is used as a surrogate in the only emission limit in GD NESHAP (Subpart R).	VOC	VOC	**Equivalent.**	NOTE: Both the GD NESHAP and SCAQMD rules apply to the storage and transfer of gasoline and would control any HAP found in the gasoline. SC rule exempts some HAPs in definition of VOC, but these HAPs do not occur in gasoline.

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Applicability: Cutoffs	Located at major sources only (> 10/25 tpy). Bulk gasoline terminals $\geq$ 75,700 ℓ/day (20,000 gal/day) throughput [40 CFR 60.501]. Pipeline breakout station definition: a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for reinjection and continued transportation or to other facilities. Gasoline storage vessels $\geq$ 75,000 ℓ (75 m^3) [40 CFR 60.112b]. Gasoline definition: petroleum distillate or petroleum distillate/alcohol blend having a RVP $\geq$ 27.6 kilopascals (4 psia) used as a fuel for internal combustion engines [40 CFR 60.501].	Racks loading products with vapor pressure 1.5 psia or greater that are defined as Class A, B, or C facilities [(a)]. Class A: Loads 75,700 ℓ (20,000 gal) or more on any one day [(b)(2)]. Class B: Constructed before 1/9/76 and loads not more than 15,140 ℓ (4,000 gal) but not more than 75,700 l (20,000 gal) on any one day [(b)(3)]. Class B: Constructed before 1/9/76 and loads not more than 15,140 ℓ (4,000 gal) on any one day, but more than 1,892,500 ℓ (500,000 gal) in one year [(b)(3)]. Class B: Constructed after 1/9/76 and loads not more than 75,700 ℓ (20,000 gal) on any one day [(b)(3)]. Class C: Existing before 1/9/76 and loads not more than 15,140 ℓ (4,000 gal) on any one day and not more than 1,892,500 ℓ (50,000 gal) in one year [(b)(4)].	Aboveground stationary tanks: Applies to any aboveground stationary tank with a capacity of 75,000 ℓ (19,815 gal) or greater for storage of organic liquids (i.e., any liquid containing VOC) [(a)]. Also covers aboveground gasoline storage tanks ranging in size from 251 to 19,815 gallons. [(a)].	**Equivalent**; SCAQMD rule is more stringent than GD NESHAP. 1) SCAQMD regulates smaller aboveground tanks storing gasoline (251 to 19,815 gallons) by requiring pressure/ vacuum vents.	NOTE: SCAQMD Rule 462 covers more facilities. Some of these sources are not in other source categories. NOTE: GD NESHAP would normally regulate only some Class A facilities in SCAQMD. Class B and Class C facilities are not likely to be located at major sources and they do not meet the definition of a gasoline bulk terminal defined in the GD NESHAP (Subpart R).

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Compliance Date	New: Upon startup. Existing: 3 years after promulgation - December 15, 1997.	Class A: February 1, 1998 for loading rack limit of 10 mg/ℓ (new and existing) [(d)(1)(D)].	Upon startup or for FR/IFRT constructed after June 1, 1984 and EFR constructed after August 1, 1977. Storage tanks have a compliance date of March 1994 Cargo tanks compliance date (vapor tightness certification) is April 12 1996.	**Substitution Acceptable; emission reductions equivalent but specific requirements lack equivalency.** SCAQMD's vapor processor limit (10 mg/ℓ) does not go into effect until 49 days after the effective date of the GD NESHAP. However, on the other hand, we should be able to consider the requirements equivalent because the SC Rule limit must be achieved and demonstrated by 2/1/98 and the MACT requires demonstration (compliance test) by June 15, 1998. Otherwise, apparently equivalent.	Need to draft "49-day gap" equivalency discussion. SC Rule requires the performance test/demonstration by 2/1/98. May need a protocol (like chromium Electroplating MACT) for District, state, and regional approval of pre-existing performance test. Many affected sources already comply with standard in SC. Compliance with the MACT standard determined can be any time after 12/15/97.

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Emission Standards: Loading Rack Standards	New: 10 mg/ℓ TOC. Existing: 10 mg/ℓ TOC. Other standards include (60.502): 1) Loading rack be equipped with a vapor collection system (VCS). 2) VCS shall prevent vapors collected at one loading rack from passing to another loading rack. 3) Only vapor tight cargo tanks can load. 4) Gasoline cargo tanks must be equipped with vapor collection equipment compatible with terminal's VCS. 5) Terminal's and cargo tank's vapor collection equipment must be connected during loading. 6) Vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in delivery tank from exceeding 18" H_2O. 7) No Pressure-Vacuum vent in VCS shall open at 18" H_20. (This is required by incorporating the NSPS into the MACT Standard	10 mg/ℓ VOC (Class A Facilities) [(d)(1)(D)]. Be equipped with a CARB certified vapor recovery system (equipped with a CMS) and/or disposal system new and existing. [(d)(1)(A) and (B)] 1) Equipped with a vapor rec. and/or disposal system. 2) Equipped with continuous monitoring system. 3) Vapors shall be displaced to vapor rec./disposal system. 4) Bottom loading only 5) No overfills, vapor leaks, liquid leaks allowed.	Not Applicable	**Equivalent.** For the 10 mg/l TOC limit see "compliance date" discussion above. While the GD NESHAP has requirements not specifically stated in Rule 462 or ARB CP-203 (e.g., items 4 and 5 in the GD NESHAP column), requirements in SC and CARB requirements substantively require the same actions by the operator. For item 6 in the GD NESHAP, section 4.1.4.1 of ARB CP203 requires during the static testing that the system shall not cause the pressure in the cargo tank to exceed 18" H2O during cargo tank loading.	NOTE: CARB will compare NESHAP carefully for the entire list of specifications to confirm all requirements are covered in SC rules, practices, and permits. EPA may continue to use the list in the MACT standard to determine compliance.

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Emission Standards: Cargo Tanks	In general, NESHAP places limits on loading to tested cargo tanks (see recordkeeping and reporting requirement).	In general, SC rule limits loading to cargo tanks with a valid certification of vapor integrity as defined by the applicable CARB certification and test procedures (CP-204, TP-204.1, and TP-204.2).	Not Applicable	**Equivalent** on an emissions basis if MRR are equivalent too.	See MRR discussion below. Both rules requiring operator not to load untested/unapproved tanks.
	1) Annual Certification a) Cargo tank vapor tightness test using Method 27 (1" - 2.5" H_2O depending on cargo tank capacity).	- Annual certification test for cargo tanks -TP-204.1 (0.5"-1.25" H_2O), depending on cargo tank capacity) [(d)(4)]	Not Applicable	**Equivalent** -- SC has a more stringent pressure decay limit than GD NESHAP.	
	b) Internal vapor valve test using Method 27 (5" H_2O).	Internal vapor valve test using TP 204.1 (5" H_2O).	Not Applicable	**Equivalent**	
	2) "Any Time" Inspectors Tests	- Anytime tests that ARB titles "Daily"			
	a) Leak detection test using Method 21 (leak is 21,000 ppm as propane and measured at surface where leak may occur).	Leak detection using TP 204.3 (leak is 21,000 ppm as propane measured at 2.5 cm where leak may occur).	Not Applicable	**Equivalent if/when** SC revises rule or permit to require measuring distance =< 1cm.	
	b) Nitrogen Pressure Decay Test - cargo tank (2.5 - 4.0" H_2O). - internal vapor valve (1.1"-5.5" H_2O)	Performance standard -using TP 204.2 - cargo tank (2.5 - 4.0" H_2O). - internal vapor valve (1.1"-5.5" H_2O)	Not Applicable	**Equivalent**	
	c) "Continuous pressure decay test" using Method 27 at higher leak rate std. (2.5-4.0" H_2O) than annual test	Performance standard -using CARB Test Procedure (TP) 204.1 (2.5" - 4.0" H_2O).	Not Applicable	**Equivalent**	

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Emission Standards: Storage Vessels - Rim Seal/Fitting Requirements	New: 40 CFR 60, subpart Kb NSPS (both rim seal and controlled fitting requirements). Existing: If not already meeting rim seal requirements of subpart Kb, EFRTs must comply with subpart Kb (both rim seal and controlled fitting requirements). Existing: If already meeting rim seal requirements of subpart Kb, EFRTs not required to install additional equipment but must meet rim seal monitoring, recordkeeping, and reporting.	Not Applicable	Gasoline storage tanks between 950 ℓ (250 gal) and 75,000 ℓ (19,815 gal) must be equipped with a pressure vacuum valve [(d)]	**Equivalent.**	
	<u>Rim seal requirements of subpart Kb:</u> Fixed Roofs (FR) - 1) Internal floating roof with liquid-mounted seal or, 2) Vapor-mounted seal with a secondary seal or, 3) Vapor recovery system with a closed vent system having 95 percent control efficiency and operated with no detectable emissions indicated by an instrument reading of less than 500 ppm immediately before the performance test only. Ext. Floating Roof (EFR) - 1) Mechanical- or liquid-mounted primary seal plus a secondary seal. Internal Floating Roof (IFR) - 1) Liquid-mounted seal or 2) Vapor- mounted seal with a secondary seal. <u>Controlled Fittings</u> (gasketed cover, seal, or lid) required for new and existing EFR & IFR tanks as specified above		FR - Vapor recovery system with 95% control efficiency [(c)(3)]. EFR - Metallic primary seal and a resilient toroid secondary seal [(c)(1)]. "Gasketed" cover, seal, or lid (fittings) **not** required (d) [(c)(1)(D)] for EFR. IFR - Single liquid-mounted primary seal <u>or</u> a primary and secondary seal; after June 1, 1984 organic vapor concentration above the roof must be $\leq$ 30% LEL (verify using explosimeter) [(c)(2)] controlled fittings required for IFR [(c)(2)(B)].	**Equivalent if/when** test protocol requires a "no detectable emissions" pre-test leak check consistent with MACT protocol. **Equivalent** **Equivalent if/when** SC requires "gasketed" covers, seals or lids via rule or permit. **Equivalent.**	CP203 Requires pretest leak detection. Need to check exact specifications for leak definition, etc. SC Checking status of Ka vs Kb tanks.

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Emission Standards: Storage Vessels - Inspection Requirements	FR - For FR utilizing a control device, the VCS must be operated with no detectable emissions indicated by an instrument reading below 500 ppm as methane above background valve (for performance test only). IFR - Inspect liquid-mounted or mechanical primary seals annually [40 CFR 60.113b(a)(2)]. IFR - Inspect vapor-mounted primary and secondary seals at least every 5 years [40 CFR 60.113b(a)(3)]. EFR - Measure gaps between tank wall and primary seal every 5 years; measure gaps between secondary seal and tank wall annually [40 CFR 60.113b(b)]. Repair within 45 days with a 30 day extension, if requested [40 CFR 60.113b(b)(4)].	Not Applicable	<u>Self inspection of floating roof tanks:</u> - submit inspection and maintenance plan - inspect tanks twice per year at 4 - 8 month intervals - bring into compliance within 72 hrs of non-compliance [(e)]. NOTE: District provides an "inspection procedures and compliance report form" for facilities to use for inspections.	**Equivalent.** SC Rule 463 is more stringent than GD NESHAP. 1) SCAQMD Inspections are more frequent. 2) Tanks must be repaired and brought into compliance sooner.	NOTE: This equivalency determination assumes(') that the SCAQMD inspection form has procedures that are the same as those required by GD NESHAP (Region 9 will do this with material from SC) and that the 500ppm limit per discussion above is added to SC protocol. Need to explain how the protocol is required of the operator.

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Emission Standards: Equipment Leak Standards Pumps, valves, connectors, open-ended lines, etc. in vapor and liquid service	New and Existing: inspections of equipment using: Option 1- monthly visual sight, sound, and smell or Option 2- a monitoring program that has been demonstrated to be equivalent to Option 1 [63.424]. [while criteria for approval is not clearly specified in the rule, EPA believes an approvable leak definition would be 10,000ppm @ 1 cm or less.	Inspections of vapor collection system, vapor disposal system, and each loading rack (all equipment from the pumps at the storage tanks through the cargo tanks must be maintained in a vapor or liquid leak-free state). [(d)(6) and (b)(14)] Option 1- monthly if by sight, sound, and smell. Option 2- quarterly if using OVA using Method 21 (OVA) Vapor leak defined at 3,000 ppm as methane measured 2 cm from source using EPA Method 21 [(b)(7)]. NOTE: 3,000 ppm as methane is equivalent to 1,000 ppm as propane		**Equivalent**. SC Rule 462 is more stringent than the GD NESHAP. SCAQMD leak repair schedule is more stringent (i.e., repair in 3 days vs 5 days). Equipment Leaks. 1) Equivalent (and more stringent if SCAQMD only requires monthly sight, sound, and smell option. 2) Equivalent if/when SCAQMD allows instrument program and uses Method 21 (<=1cm) measuring distance.	SC may vary leak definition within reason. Also need to confirm appropriate leak detection frequency.
	New and Existing: Initial repair within 5 days of detection; repair within 15 days unless shown as infeasible.	All leaks must be repaired within 72 hours (3 days).		Equivalent. SC more stringent.	

Topic Area	Gasoline Distribution (GD) NESHAP	SCAQMD Rule 462. Organic Liquid Loading	SCAQMD Rule 463. Organic Liquid Storage	Equivalency	Comments/ Resolutions
Test Methods and Procedures	1) Vapor Processors Vapor processor outlet test -EPA Methods 2a, 2b, 25a, and 25b. [60.503(b)(6)]. -6 hour test -300K liters loaded during test -Pressure test of VCS -95 % control efficiency (if controlling a FR tank).	Compliance with emission limit - South Coast Rule 462(d)(l) conflicts with state law in that it implies that only District E.O. shall approve now or modified vapor recovery systems. Calif. H&SC 41954 requires ARB test certification of vapor recovery systems per CP203. In these CP203 references EPA procedures 2a, 2b, 18, 25a, and 25b. CP203 does not address determining the 95% control efficiency of the NESHAP when FR tank emissions are piped to the vapor recovery processing amount. However, a recovery system demonstrating 10 grams or less of VOC per 1000 liters of propane transferred will correlate to 95% +control efficiency.	Efficiency of VRS collecting vapors from a fixed roof tank determined according to SCAQMD Test Method 501.1 or EPA Method 25 or 25A may be used in place of SCAQMD Test Method 25.1 specified in Method 501.1 [(g)(1)]	**Equivalent if/when** methods are found equivalent. SCAQMD allows the use of Method 501.1 for determining compliance with the 10 mg/ℓ emission limit and Method 202 for determining compliance with the 95% control efficiency (storage tanks). Need process to review existing and on-going SC and CARB tests to allow appropriate and quick substitution of results	NOTE: EPA has not determined if 501.1 is equivalent to Methods 25a or 25b. EMC and CARB are reviewing. EPA would like to know what is averaging time and other specifications for conditions of doing the performance test. CARB will draft technical comparison for protocol like electroplating NESHAP.
	For the initial performance test of vapor processors controlling loading racks and fixed roof storage tanks-				
	Leak inspection prior to performance test (measures leaks at 500 ppm as methane using Method 21).	Leak inspections at any time (measures leaks at 21,000 ppm as propane using Method 21).		**Equivalent if/when** leaks are measured before initial test as 500 ppm methane	SC would change measurement protocol.
	2) Cargo Tanks -Method 27 -Nitrogen Test Procedure -Method 21 (Leak measured at 21,000 ppm as propane at surface of Leak)	CP204 CP204.1 and CP204.2 CP204.3 (Leak measured at 21,000 ppm as propane at 2.5 cm from leak but may be superseded by requirement to be consistent with EPA method 21).		**Equivalent** **Equivalent** **Equivalent if/when** leaks are measured withing 1 cm leak measuring distance (i.e., method 21).	CARB believes CP204 already requires measurements within 1 cm on paper; need to clarify actual practice.

September Update to GASOLINE DISTRIBUTION SCAQMD/NESHAP COMPARISON
MONITORING, REPORTING, & RECORDKEEPING

NESHAP	SCAQMD RULE 462	SCAQMD RULE 463	COMMENT
Section 63.427 Continuous Monitoring (a) install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in: 1. carbon absorption system 2. refrigeration condenser system 3. thermal oxidation system 4. Ultraviolet beam sensor or thermocouple 5. (a) Except any vapor processing system not listed and has been demonstrated continuous compliance to the Administrator 5. (b) other listed vapor processing system shall not exceed the operating parameter value	**Rule 462 Organic Liquid Loading** (d) Requirements 1.(B) Each vapor recovery and/or disposal system at a Class A facility shall be equipped with a continuous monitoring system (CMS) that is installed, operated, and maintained according to the manufacturing specifications and is approved by the Executive Officer/designee. 1.(F)The transfer equipment shall be operated and maintained so that there are no overfills, facility vapor leaks, liquid leaks, or liquid leaks from disconnect operations	**Rule 463** (e) shall conduct self-inspections of its tank(s) according to the following procedures: 1. Inspection and Maintain Plan 2. Identification Requirements 3. Owners or Operator Inspection Requirements 4. Any tank not in compliance shall be brought into compliance within 72 hours of the determination of non-compliance	**Equivalent if the manufacturer's specs and SC additions are put in the permit, incorporated by reference. Parameter values should be made part of the permit. SC has made clear that a parameter exceedance is an violation.** **Disagreement over whether o/o must re-open permit for changes to the compliance plan. AED believes Title V handles small and large changes well. If it is a large change in the compliance plan, it needs full Title V process. Are parts of the plant state-only enforceable? Enforcement liability for violations of the plan? CA suggests just track the MACT language in the permit.** CA position: Equivalent if/when rule or permit requires source to 1) install, calibrate . . . according to manufacturers specification, 2) maintain copy of manufacturer specification on site, 3) if manufacturer specification are not available, sources will develop and follow specification consistent with the requirements of the MACT and district rule. District should establish a process for reviewing significant changes to mfg specifications.
Section 63.424 Equipment Leaks (a) Monthly leak inspections for sight, sound and smell. (B) Maintain a log of inspections. (C) First attempt at repair of leaks w/in 5 days, completed w/in 15 days.	4.(B) Transport vessel vapor leaks shall be determined in accordance with the CARB Test Procedure for Gasoline Vapor Leak Detection Using a Combustion Gas Detector dated 9/1/82. 6. Leak Inspection Requirements (A) perform an inspection of the vapor		**Equivalent+ 3 days to repair under SC rule, instead of 5/15 in MACT.**

NESHAP	SCAQMD RULE 462	SCAQMD RULE 463	COMMENT
	collection system, the vapor disposal system, and each loading rack handling organic liquids, for facility vapor leaks or liquid leaks of volatile organic compounds on one of the following schedule: I. Monthly if sight, sound, and smell are used as detection methods, ii. Quarterly if an organic vapor analyzer (OVA) is used to monitor for facility vapor leaks. (B) Each detection of a leak shall be repaired or replaced within 72 hours.		
Section 63.428 Reporting & Recordkeeping (a) Initial Notifications shall be submitted no later than 1 year after the facility is subject to NESHAP			**Equivalent/Moot. Title V compliance cert in application satisfies this reqmt.** No initial reporting requirement
(b) keep the following records of test results for each gasoline cargo tank loading at the facility: 1. Annual certification testing under Section 63.425(e) 2. Continuous performance testing under Section 63.425 (f), (g) and (h) 3. Up-to-date documentation file for each gasoline cargo tanker loading at the facility		**Rule 463 Organic Liquid Storage** (e) 5. Reporting and Recordkeeping Requirements (A) All inspections shall be recorded on compliance inspection report forms approved by the Executive Officer (B) All compliance inspection reports and documents shall be submitted to the Executive Officer within 5 working days of completion of the self-inspection (C) A written report shall be submitted to the Executive Officer within 120 hours of the determination of non-compliance indicating corrective actions taken to achieve compliance (D) All records of owner or operator inspection and repair shall be maintained at the facility for a period of 3 years	**Equivalent if the Chevron-like model computerized lockout system and records are required by rule or put in the permit. Tank truck computerized entry system is very effective. Only certified trucks may load.** California runs a State certification system for the annual checking of the vapor tightness of cargo tanks. Tanks that pass annual certification are issued a sticker that must be attached to the tank. Paperwork documenting the certification of the cargo tanks is sent to the owner/operator of the tank, who in turns send copies of this documentation to the oil companies that operate bulk loading facilities. The terminal operator then logs the certification data, including the date of certification, into the computer that operates the terminal. In addition, a plastic loading card is then issued to the cargo tank operator. When the plastic loading card is inserted into a slot in the loading equipment and allows gasoline to flow and the cargo tank to be filled. If the cargo tank operator has not obtained, each year, new annual certification and submitted this data to the terminal operator before the

NESHAP	SCAQMD RULE 462	SCAQMD RULE 463	COMMENT
			expiration of the previous certification (so that he/she may get a new plastic loading card), the computer running the terminal will lock that cargo tank out from loading gasoline when it recognizes an expired loading card.
	(E) Emissions Reporting I. The requirements shall apply to all organic liquid storage tanks without regard to exemptions specified in subdivision (f) ii. Shall provide all upset emissions information associated with product change, repair, and turnover or another excess emission incidents iii. Shall maintain emission data for all organic liquid storage tanks for the most recent 2 years		
(c)(1)Keep an up-to-date, readily accessible record of the continuous monitoring data required under Section 63.427(a) (2) Record and report simultaneously with the notification compliance status required under Section 63.9(h)	**Rule 462** (g) 1. Maintain a daily log of the throughput and a summary of the throughput for the calendar year to date 2. Maintain records for verification of compliance with the Leak Inspection Requirements ((d)6). The records shall include, but are not limited to, inspection dates, description of leaks detected, repair/replacement dates, and reinspection dates. A single compliant daily log shall suffice to satisfy this requirement		**Equivalent if/when MACT reqmts to keep CMS data are reqd by rule of put in the permit. SC says this is reqd in the compliance plan, which should be made part of the permit.** Issue concerning whether changes to plan are subject to Title V process.
(3) Submit a description of planned reporting and recordkeeping if using a vapor processing system or monitor an operator parameter other than those specified in Section 63.427(a)			**If this condition arises, it must be put in the permit.**
(d) Records for storage vessels shall be kept for at least 5 years	**Rule 462 (g)** 3. All records shall be maintained at the facility for at least two (2) years	**Rule 463 (e)(5)(d)** All records of owner/operator inspection and repair shall be maintained at the facility for a period of 3 years	**Equivalent. 5 years reqd by Rule 3004 and Title V.**
(e) owners/operators complying with section 63.424 (a) through (d) shall record each			**Equivalent. See Rule 462(g)(2) above**.

NESHAP	SCAQMD RULE 462	SCAQMD RULE 463	COMMENT
detected leak in a log as listed in (1) to (7)			
(f) Report to the Administration a description of the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under section 63.424(f), the report shall contain a full description of the program			**Equivalent if this is part of the permit application. Equipment was listed in the permits we saw, so the source must have reported it to the District already.**
(g) owners/operators shall include in a semiannual report to the Administrator the following information: (1) each loading of a gasoline cargo tank for which vapor tightness documentation had not be previously obtained (2) periodic report required under paragraph (d) of this section, and (3) The number of equipment leaks not repaired within 5 days after detection			**Moot since 6 month reports are reqd by Title V. Equivalent if (g)(1) thru (3) are added to the rule or permit. See discussion on breakdowns being reported in 1 - 3 days of discovery with written reports following within a week per rule 430.**
(h) Owners/operators shall include in the excess emissions report to the Administrator the following information from (1) through (4)			**Equivalent if/when excess emissions report consistent with MACT is required via rule or permit.**
(I) Owners/operators shall perform the following requirements from (1) to (4) all of which will be available for public inspection, including supporting assumptions, documentation that parameters not exceeded, report annually about exceedances			**Equivalent if/when these or similar reqmts must be in the District rule or the permit.**
(j) Owners/operators shall perform the following requirements from (1) to (3) all of which will be available for public inspection			**Equivalent if/when these or similar reqmts must be in the District rule or the permit. New sources need to supply supporting documents. PTE policy requires records of ongoing area source status (not exceeding parameters, etc.) . CA agrees this needs to be a general generic prohibitory rule or added to this rule.**

Comparative Analysis of South Coast (SC) Air Quality Management District Rule 1420 to the Secondary Lead Smelting NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Sources Covered*	• Applies to the following sources at all secondary lead smelters: Blast, reverberatory, rotary, and electric smelting furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive sources, and fugitive dust sources [§63.541(a)]	• Applies to all persons who own or operate facilities that use or process lead-containing material including, but not limited to, primary or secondary lead smelters, foundries, lead-acid battery manufacturers or recyclers, and lead-oxide, brass, and bronze producers [SC1420(b)].	• **Equivalent**	• SC covers other sources but they are associated with other NESHAP source categories. Quemetco consists of an reverberatory furnace and an arc furnace GNB consists of "collocated" blast furnace and reverberatory furnaces.
Applicability *HAPs Covered*	• NESHAP covers both lead and THC (as a surrogate for organic HAPs) [§63.543(c)].	• SC Rule covers only lead and indirectly other metal HAP [SC1420(d)].	• **Equivalent if/when** affected sources are covered via permit or rule consistent with the MACT Standard; see requirements below for details.	
Applicability *Compliance Dates*	• For existing sources, compliance shall be achieved no later than December 23, 1997 [§63.546(a)]. • If construction or reconstruction after June 9, 1994 shall achieve requirements of this subpart by June 23, 1997 or upon startup of operations, whichever is later [§63.546(b)].	• Compliance date is July 1, 1994 [SC1420(d)].	• **Equivalent**	• For existing and new sources, compliance date in the SC Rule is sooner than the compliance date in the NESHAP.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
●**Applicability** *Exemptions*	● NESHAP contains no exemptions. This NESHAP covers major and area sources.	● Lead-processing facilities processing 2 tons or less or lead per year [SC1420(k)(1)]. ● Lead processing facilities processing more than ?? tons of lead per year and with maximum daily lead emissions of less than 0.5 pound per day from all emission points and fugitive dust sources, and determined by a compliance plan approved by the Executive officer and submitted pursuant to certain subdivisions shall be exempt from different parts of the rule [SC1420(k)(2)].	**Equivalent**	● SC Rule contains exemptions while the NESHAP does not. But exempted sources are not "smelters" (as defined in the MACT) and therefore not covered by NESHAP.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Process Sources*	Lead ● No lead compounds in excess of 2.0 mg Pb/dry standard m^3 (0.00087 grains Pb/dry standard ft^3) [§63.543(a)]. Organic HAPs (OHAPs) ● For owners or operators of a secondary lead smelter with a collocated blast furnace and reverberatory furnace: ● Existing, new, or reconstructed blast furnaces: 20 pm by volume expressed as propane corrected to 4% CO_2 [§63.543(c)]. ● Secondary lead smelter with a collocated existing blast furnaces and reverberatory furnace: no greater than 360 ppm by volume expressed as propane corrected to 4% CO2 when the reverberatory furnace is not operating [§63.543(c)(1)]. ● Secondary lead smelter with a collocated new blast furnace and reverberatory furnace: no greater than 70 ppm by volume expressed as propane, corrected to 4% CO_2 when the reverberatory furnace is not operating.	Lead ● Requires control devices which shall reduce the lead emissions by 98% or more [SC1420(e)]. Organic HAPs ● The SC Rule does not contain explicit limits for organic HAPs like the NESHAP does. However, SC NSR/toxics and risk-based regulations affect organic HAP potentially like the NESHAP does.	● **Equivalent** SC Rule has equivalent controls ● **Equivalent if /when THC e**mission limits and other appropriate compliance measures are incorporated via permit or rule.	● **Comment**: The NESHAP has a lead concentration-based limit while the SC Rule has a control-based (% reduction) limit. ● Need to document lead permit and actual field performance test (QA'd previous test results are acceptable). Performance was reported to be about 1.0 mg Pb/dscm. ● For OHAPs, control technology and mass emissions (emission limit) between NESHAP and SC requirements are equivalent. The THC limits do not apply to Quemetco. Need to check source test to determine if GNB's after burner complies with MACT limits.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Process Sources*	● For secondary lead smelters with only a blast furnace: ● Existing sources: 360 ppm by volume expressed as propane corrected to 4% CO_2 [SC1420(d)]. ● New sources: 70 ppm by volume expressed as propane corrected to 4% CO_2 [SC1420(e)].			

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Process Fugitive Sources*	● All process fugitive emission sources (Smelting furnace and dryer charging hoppers, chutes, and skip hoists; smelting furnace lead taps and molds; smelting furnace slag taps and molds; refining kettles; dryer transition pieces; and agglomerating furnace product taps [§63.544(a)]) will be vented to an enclosure hood that shall not discharge gasses to the atmosphere that contain lead compounds in excess of 2.0 mg Pb/dry standard ft^3 [§63.544(b)]. ● The control device shall not discharge to the atmosphere more than 2.0 mg Pb/dry standard m^3 (0.00087 grains/dry standard ft^3) [§63.544(d)]. <u>Face Velocities:</u> ● Total enclosed operations to general ventilation such that building is a lower than ambient pressure or meet specific face velocities [§63.544(b).	●Requires control devices which shall reduce the lead emissions by 98% or more [SC1420(e)]. ● No comparable provisions in SC Rule. SC1407 requires all capture operations to comply with ACGIH specifications.	●**Equivalent** ●The SC Rule provides equivalent control. ● **Equivalency if/when** SC requires through permit or rule.	● Both requirements call for fabric filtration (e.g., HEPA filters). Accordingly, only need to evaluate MRR.

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards *Fugitive Dust Sources*	● Must prescribe to a standard operating procedures manual that describes the measures established to control fugitive dust emission sources within the areas listed: Plant roadways, battery breaking area, furnace area, refining and casting area, and materials storage and handling area [§63.545(a)]. ● Battery Breaking Area Partial enclosure of storage piles, wet suppression applied to storage piles with sufficient frequency and quantity to prevent the formation of dust with pavement cleaning twice a day or total enclosure [§63.545(c)(2)]. ● Plant Roadways All areas subject to vehicular traffic shall be paved and the pavement cleaned twice a day except on days of precipitation and on days where sand has been spread to provide traction on ice or snow [§63.545(c)(1)].	● Fugitive lead-dust emissions shall be controlled on surfaces that accumulate lead-containing dust subject to vehicular or foot traffic by being washed down, vacuumed, or wet-mopped at least once a week or shall be maintained with the use of non-toxic chemical dust suppressants [SC1420(e)(4)(B)].	● **Equivalent for all (except plant roadway)** because certain SC rules and permit require buildings to be totally enclosed. This can be included in a Title V permit. ● **Equivalent.** Battery Breaking Area(the only area not contained within the building) was totally enclosed with a water spray, dust suppression system. ●For plant roadways, **equivalency is uncertain but acceptable if/when** permit maintains current conditions, uses existing ambient monitoring to detect fugitive dusts for additional washdown as needed, and remainder of operation is completely enclosed with "vehicle washdown".	The operation was clean given the washdown and total enclosure and building ventilation. ●SC Rules only require washing down of surfaces that accumulate lead dust once a week (vs. MACT of twice per day). The current practice calls for washing down three times per week. (EPA will check on basis for twice per day frequency.)

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards *Fugitive Dust Sources*	● Furnace Area Partial enclosure and pavement cleaning twice a day OR total enclosure with ventilation to a control device [§63.545(c)(3)]. ● Refining and Casting Area Partial enclosure and pavement cleaning twice a day OR total enclosure with ventilation to a control device [§63.545(c)(4)]. ● Materials Storage and Handling Area Partial enclosure of storage piles, wet suppression applied to storage piles with sufficient frequency and quantity to prevent the formation of dust, vehicle wash at each exit from the area, and paving of the area OR total enclosure of the area and ventilation of the enclosure to a control device with a vehicle wash at each exit [§63.545(c)(5)].	● Fugitive lead-dust emissions shall be controlled by dust-forming material which may contain lead, including, but not limited to, baghouse dust dross, ash, or feed material shall be stored in an enclosed storage area [SC1420(e)(4)(A)]. ● Fugitive lead-dust emissions shall be controlled by storing, disposing of, recovering, or recycling using practices that do not lead to fugitive lead-dust emissions [§SC1420(e)(4)(C)].	● **Equivalent** - Furnace areas are totally enclosed and vented to baghouse. ● **Equivalent** - Refining and casting areas are totally enclosed and vented to baghouse. ● **Equivalent if/when** "vehicle wash" is added to permit or rule to comply with §63, 545(c)(5). Storage piles are totally enclosed and vented to baghouse.	● Operation was "totally enclosed" but did not have "vehicle wash." ● Requirement is focused on "lead-bearing" material handling areas; not clean areas.

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
Applicability Section 63.550 (a)	General Provisions 63.10: The owner or operator of a secondary lead smelter shall comply with all of the recordkeeping requirements under this section.	Districts general recordkeeping rule, R. 109, last amended 3-6-92, requires records to be kept on site for 2 years. However, District rule 3004(a)(4)(E), addressing Title 5 permits, requires recordkeeping for major sources for 5 years.	**Equivalent/Moot.** Rule equivalent
	Compliance Dates	**Compliance Dates**	
Compliance Dates Section 63.546 (a) & (b)	Existing secondary smelter-no later than December 23, 1997; construction or reconstruction after June 9, 1994 by June 13, 1997 or upon startup of operations, whichever is later.	Compliance with standards (section d.) and Requirements (section e.) By July 1, 1994. Compliance plan by July 1, 1993 for any lead processing facility that processes more than 2 tpy of lead.	**Equivalent.** Compliance dates in South Coast Rule 1420 are earlier than NESHAP.
Compliance Plan background provision from SC Rule 1420 only		Rule 1420, section (f) Compliance plan shall include all of the following, including all supporting information, data, and calculations: 1. For each of the previous three calendar years dating from the date of the adoption of this rule; (A) quantities of each lead-containing material processed; (B) the amount of lead in each material processed; 2. For the previous 12 calendar months; (A) the maximum and average daily process rates and monthly process rates for all equipment and processes; (B) the maximum and average daily and annual emissions of lead from all emission points and average daily and annual emission estimates from all sources of fugitive lead dust; 3.The approximate date of intended source tests for lead control devices, as required by paragraph (e)(2), and an application for a Permit to Construct any required lead control devices and associated emission collection systems, if applicable; 4. Engineering drawings, calculations or other methodology to demonstrate compliance with paragraphs (e)(1) and (e)(4); 5. Air dispersion modeling calculations using procedures approved by the Executive Officer to determine the location of sampling sites as required by subdivision (g) or to estimate ambient concentrations of lead as required by subdivision (h); 6. All information necessary to demonstrate means of compliance with subdivision (g).	**Equivalent or better.**

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
Monitoring Requirements Section 63.548	**Monitoring Requirements**	**Section (g) Ambient Air Monitoring**	
Section 63.548 (a)-(c)	**Standard Operating Procedures (SOP) Manual**: S(a) thru (f) relate to baghouses as controls for process sources (63.543), process fugitive sources (63.544), and fugitive dust sources (63.545). Major baghouse rqmts include:	Rule 1420, section (e)(3) requires after July 1, 1994 each emission collection system and lead control device, at a minimum, to be maintained and operated per manufacturer's specifications.	**SC indicated that lead sources see the compliance plan as a useful tool.**
63.548 (a)-(c)	(a) Os & Os shall prepare and, and at all times operate according to, a SOP manual that describes in detail procedures for inspection, maintenance, and bag leak detection and corrective action plans for all baghouses that are used to control process, process fugitive, or fugitive dust emissions from any source subject to lead emission standards. EXEMPTION: This provision does not apply to process fugitive sources that are controlled by wet scrubbers. (c) The procedures specified in the SOP manual for inspection and routine maintenance shall include, at a minimum the following: (1) Daily monitoring of pressure drop across ea baghouse cell; (2) Weekly confirmation that dust being removed from hoppers thru visual inspection, or some equiv. means; (3) Daily check of compressed air supply for pulse-jet baghouses; (4) Approp. methodology for monit. cleaning cycles; (5) Monthly check of bag cleaning mechanisms; (6) Monthly check of bag tension on reverse air and shaker-type baghouses; (7) Quarterly confirmation of physical integrity of the baghouse thru visual inspection of baghouse interior; (8) Quarterly inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means. **(a)(9) except as provided in (g) & (h) below, continuous operation of bag leak detection system;**	No later than 6 months after approval of the compliance plan , all facilities that are required or elect to employ ambient air monitoring shall conduct ambient air monitoring as follows. 1. Collect samples from a minimum of two sampling sites approved by the Executive Officer located at or beyond the property line of the facility where maximum ground level lead concentrations are indicated by Executive Officer approved air dispersion modeling calculations and based on Executive Officer approved emission estimates from all emission points and fugitive lead-dust sources; 2. Collect samples from a minimum of one Executive Officer approved sampling site to determine background ambient lead concentration; 3. Collect 24-hour samples at all sites for 30 consecutive days from the date of initial sampling, followed by one 24-hour sample collected every 6 days, on a schedule approved by the Executive Officer; 4. Submit samples collected pursuant to paragraphs (g)(1), (g)(2), and (g)(3) to a Executive Officer approved laboratory for analysis within three (3) calendar days of collection and calculate ambient lead concentrations for individual 24 hour samples within 15 calendar days of the end of the calendar month in which the samples were collected; 5. Sample collection shall be conducted using Title 40, CFR 50 Appendix B - Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method), and sample analysis shall be conducted using Title 40, CFR 50 Appendix G - Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air, or U.S. EPA-approved equivalent methods; 6. Continuously record wind speed and direction data during sampling periods using equipment approved by the Executive Officer at location and placement approved by the Executive Officer; 7. Ambient air quality monitoring shall be conducted by persons approved by the Executive Officer and sampling equipment shall be operated and maintained in accordance with EPA-referenced methods.	**However, there is a difference of opinion over how to achieve equivalency. These options are available.** **Option 1 - quick review of monitoring system in use to see if it is effective, comparing it against "enhanced monitoring" generally rather than the specifics in this MACT. A "wholistic" approach.** **Option 2 - thorough analysis to see if the SC monitoring is as enhanced and technically sound as that in the MACT standard, including work practices. More "line by line" comparison.** **Option 3 - Adopt the MACT provisions into the District rule.** **Manufacturer'sspecs is a sticky point. AED wants these incorporated by reference into the permit, so that all applicable requirements are "in" the permit. Ben Shaw points out that some equipment is fashioned by the source and there are no Manufacturer's specs. All these specs should be in the "compliance plan", which Ben says is 1/4" thick and will be reviewable by the public during the permit process.**
63.548 (a)-(c)		Rule 1407 (d)(5) Good operating practices shall be used by the facility, and demonstrated through a maintenance program and the use of measuring devices, or other procedures approved by the District, to	Rule 1407 may satisfy many of the 63.548(a)-(c) requirements.

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
		maintain air movement and emission collection efficiency by the system consistent with the design of the criteria for the system. (A) **Maintenance program** shall specify at a minimum the following: (i) Maximum allowable variation from design values of operating parameters, such as air velocity in the hood and ducts and pressure drop across the control device. (ii) Areas to be visually inspected, such as the clean side of the baghouse and the ducts operating under positive pressure, and the required frequency of such inspections. (iii) Methods of documenting compliance with these requirements, such as a log of such inspections and records of observations and measurements. (B) **Measuring Devices** (i) Flow meter(s) shall be installed in the collection system to indicate the air velocity in the duct t or from the control device. (ii) Pressure Gauge: A magnehelic or a light sensitive gauge shall be installed to indicate the pressure drop. This gauge should have a high and low setting for the pressure drop and should trigger an alarm when the high or low set points are exceeded or the cleaning cycle when the high set point is reached. (iii) Broken Bag Detector: A broken bag detector with an alarm system shall be installed in the dry filter control device to sound an alarm, if there are broken or damaged filter media or leaks in the baghouse. (iv) Temperature Gauge: A thermocouple and a temperature controller to monitor the temperature to the inlet of the control device shall be installed. Rule 1420 Section (e)(5) requires a facility that processes more than 10 tons of lead per year to install , maintain, and operate ambient air quality monitoring equipment as specified in (g)(Requirements for Ambient Monitoring). Rule 1420 Section (e)(6) requires a facility that processes more than 2 tons, but less than or equal of 10 tons of lead per year, to determine ambient lead concentrations by monitoring as specified in (g), or by air dispersion modeling calculations as specified in (h) (Requirements for Air Dispersion Modeling).	
63.548 (d)	The procedures specified in the SOP manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the bag house manufacturer's instructions for routine and long-term maintenance.	Rule 1420, section (e)(3) requires after July 1, 1994 each emission collection system and lead control device, at a minimum, to be maintained and operated per manufacturer's specifications. Rule 1407, section (d)(5)(A) specifies maintenance program requirements (specific provision mentioned above)	**Equivalent if/when. See previous discussion. AED sees these maintenance schedules being incorporated by reference into the permit under the MACT. Same should be true for SC's additions to the manufacturer's specs.** CA prefers: Equivalent if/when requirements consistent with the MACT are

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
			incorporated via rule or permit. Alternative would be allowed based on compelling engineering information. Process needs to be established for delegation/approval of alternative.
63.548 (e) 63.548 (e)	The bag leak detection system required by paragraph (a)(9) of this section, shall meet the specifications and requirements of paragraphs (e)(1) through (e)(8) of this section. (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligram per actual cubic meter (0.0044 grains per actual cubic foot) or less. (2) The bag leak detection system sensor must provide output of relative particulate matter loadings. (3) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loadings is detected over a preset level. (4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. EPA or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system. (5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time. (6) Following initial adjustment, the owner or operator shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the approved SOP required under paragraph (a) of this section. In no event shall the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition. (7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber. (8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.	Rule 1407, section (d)(5)(B) specifies measuring device requirements (specific provisions mentioned above) Rule 1420, section (e)(3) requires after July 1, 1994 each emission collection system and lead control device, at a minimum, to be maintained and operated per manufacturer's specifications. Rule 1420, section (e)(5) requires a facility that processes more than 10 tons of lead per year to install , maintain, and operate ambient air quality monitoring equipment as specified in (g)(Requirements for Ambient Monitoring). Rule 1420, section (e)(6) requires a facility that processes more than 2 tons, but less than or equal of 10 tons of lead per year, to determine ambient lead concentrations by monitoring as specified in (g), or by air dispersion modeling calculations as specified in (h) (Requirements for Air Dispersion Modeling).	**Equivalent if/when. See previous discussion. Same three options. We also discussed the "Henry's language" option, too.**
63.548 (f)	The standard operating procedures manual required by	South Coast rules are silent on this issue	**Equivalent if rules are changed or**

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
	paragraph (a) of this section shall include a **corrective action plan** that specifies the procedures to be followed in the case of a **bag leak detection system alarm**. The corrective action plan shall include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective actions taken to correct the control device malfunction or minimize emissions as specified in paragraphs (f)(1) and (f)(2) of this section. (1) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm. (2) The cause of the alarm must be alleviated by taking the necessary corrective action(s) which may include, but not be limited to, paragraphs (f)(2)(I) thru (f)(2)(vi) of this section. (i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions. (ii) Sealing off defective bags or filter media. (iii) Replacing defective bags or filter media, or otherwise repairing the control device. (iv) Sealing off a defective baghouse compartment. (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system & (vi) Shutdown the process producing the particulate emissions.		**the monitoring system in place is put in the permit with compliance plan specifying the corrective action plan. Quemetco had a bag leak detection system that is alarmed.**
63.548 (g)	Baghouses equipped with HEPA filters as a secondary filter used to control process, process fugitive, or fugitive dust emissions from any source subject to the lead emission standards in Sec. 63.543, 63.544, or 63.545 are exempt from the requirement in Sec. 63.548(c)(9) of this section to be equipped with a bag leak detector. The owner or operator of an affected source that uses a HEPA filter shall monitor and record the pressure drop across the HEPA filter system daily. If the pressure drop is outside the limit(s) specified by the filter manufacturer, the owner or operator must take appropriate corrective measures, which may include but not be limited to those given in paragraphs (g)(1) through (g)(4) of this section. (1) Inspecting the filter and filter housing for air leaks and torn or broken filters. (2) Replacing defective filter media, or otherwise repairing the control device. (3) Sealing off a defective control device by routing air to other control devices. (4) Shutting down the process producing the particulate emissions.	District staff stated broken bag provisions are incorporated into permits. Rule 1407, section (d)(5)(B)(iii) specifies that a broken bag detector with an alarm system shall be installed in the dry filter control device to sound an alarm, if there are broken or damaged filer media or leaks in the baghouse. Rule 1420, section (e)(3) requires after July 1, 1994 each emission collection system and lead control device, at a minimum, to be maintained and operated per manufacturer's specifications.	**Equivalent if/when the rule is changed or the MACT provisions are put in the permit** . CA prefers: Equivalent if/when provision consistent with the MACT are incorporated via rule or permit.
63.548 (h)	Baghouses that are used exclusively for the control of fugitive dust emissions from any source subject to the lead emissions	Rule 1407, section (d)(5)(B)(iii) specifies that a broken bag detector with an alarm system shall be installed in the dry filter control device to sound	**Equivalent+.**

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
	standard in Sec. 63.545 are **exempt** from the requirement in Sec. 63.548(c)(9) of this section to be equipped with a bag leak detector.	an alarm, if there are broken or damaged filer media or leaks in the baghouse.	
63.548 (i)	The owner or operator of a secondary lead smelter that uses a wet scrubber to control particulate matter and metal hazardous air pollutant emissions from a process fugitive source shall monitor and record the pressure drop and water flow rate of the wet scrubber during the initial test to demonstrate compliance with the lead emission limit under Sec. 63.544(c) and (d). Thereafter, the owner or operator shall monitor and record the pressure drop and water flow rate at least once every hour and shall maintain the pressure drop and water flow rate no lower than 30 percent below the pressure drop and water flow rate measured during the initial compliance test.	Rule 1420, section (e)(3) requires after July 1, 1994 each emission collection system and lead control device, at a minimum, to be maintained and operated per manufacturer's specifications. South Coast staff state that they typically require monitoring of pressure drop through permit conditions.	**Equivalent if rule is changed or conditions for pressure drop and water flow rate are put in the permit, Quemetco and GNB have wet scrubbers. They were writing down the values hourly to comply with the MACT.. We agreed that hourly recording by hand or continuous recorder would be equivalent.** **Disagreement. ARB says that they may have a hard time living with hourly. Too frequent. Not needed.** SC rule not equivalent with recording requirements of 63.548(i)
63.548 (j) 63.548 (j)	The owner or operator of a blast furnace or collocated blast furnace and reverberatory furnace subject to the total hydrocarbon standards in Sec. 63.543 (c), (d), or (e), must comply with the requirements of either paragraph (j)(1) **or** (j)(2) of this section, to demonstrate continuous compliance with the total hydrocarbon emission standards. (1) **Continuous Temperature Monitoring**. (i) The owner or operator of a blast furnace or a collocated blast furnace and reverberatory furnace subject to the total hydrocarbon emission standards in Sec. 63.543 (c), (d), or (e) shall install, calibrate, maintain, and continuously operate a device to monitor and record the temperature of the afterburner or the combined blast furnace and reverberatory furnace exhaust streams consistent with the requirements for continuous monitoring systems in subpart A, General Provisions. (ii) Prior to or in conjunction with the initial compliance test to determine compliance with Sec. 63.543 (c), (d), or (e), the owner or operator shall conduct a performance evaluation for the temperature monitoring device according to Sec. 63.8(e) of the General Provisions. The definitions, installation specifications, test procedures, and data reduction procedures for determining calibration drift, relative accuracy, and reporting described in Performance Specification 2, 40 CFR Part 60, Appendix B, Sections 2, 3, 5, 7, 8, 9, and 10 shall be used to conduct the evaluation. The temperature monitoring device shall meet the following performance and equipment specifications: (A) The recorder response range must	Rule 1420, section (e)(3) requires after July 1, 1994 each emission collection system and lead control device, at a minimum, to be maintained and operated per manufacturer's specifications. CO monitoring required per Rule 407. This provides a better check on afterburner operation then temperature monitor. Inspection and permit conditions showed sources monitor temperature and maintain logs of said temperatures.	**Equivalent if rule is changed or temperature monitors/logs/specs are put in the permit, incorporated by reference.** **SC says that they also require CO monitors, which a better indicator than temperature.** CA position; Equivalent if/when requirements consistent with the provisions of MACT--63.548(j) are incorporated via rule or permit.

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
	include zero and 1.5 times the average temperature identified in paragraph (j)(1)(iii) of this section. (B) The monitoring system calibration drift shall not exceed 2 percent of 1.5 times the average temperature identified in paragraph (j)(1)(iii) of this section. (C) The monitoring system relative accuracy shall not exceed 20 percent. (D) The reference method shall be an National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference, subject to the approval of the Administrator. arithmetic average for the recorded temperature measurements.		
63.548 (j)	(iii) The owner or operator of a blast furnace or a collocated blast furnace and reverberatory furnace subject to the total hydrocarbon emission standards shall monitor and record the temperature of the afterburner or the combined blast furnace and reverberatory furnace exhaust streams every 15 minutes during the total hydrocarbon compliance test and determine an (iv) To remain in compliance with the standards for total hydrocarbons, the owner or operator must maintain an afterburner or combined exhaust temperature such that the average temperature in any 3-hour period does not fall more than 28 deg.C (50 deg.F) below the average established in paragraph (j)(1)(iii) of this section. An average temperature in any 3-hour period that falls more than 28 deg.C (50 deg.F) below the average established in paragraph (j)(1)(iii) of this section, shall constitute a violation of the applicable emission standard for total hydrocarbons under Sec. 63.543 (c), (d), or (e). (2) **Continuous Monitoring of Total Hydrocarbon Emissions**. (i) The owner or operator of a secondary lead smelter shall install, operate, and maintain a total hydrocarbon continuous monitoring system and comply with all of the requirements for continuous monitoring systems found in subpart A, General Provisions. (ii) Prior to or in conjunction with the initial compliance test to determine compliance with Sec. 63.543 (c), (d), or (e), the owner or operator shall conduct a performance evaluation for the total hydrocarbon continuous monitoring system according to Sec. 63.8(e) of the General Provisions. The monitor shall meet the performance specifications of Performance Specification 8, 40 CFR Part 60, Appendix B. (iii) Allowing the 3-hour average total hydrocarbon concentration to exceed the applicable total hydrocarbon emission limit under Sec. 63.543 shall constitute a violation of the applicable emission standard		

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
	for total hydrocarbons under Sec. 63.543 (c), (d), or (e).		
NESHAP sections relate to Performance Tests			
63.543 (h) & (i)	Annual source tests unless testing below 1mg/dscm, then every 2 years	District staff specifies no annual source testing. CA agrees to require source testing consistent with MACT.	**Not equivalent. Believe that source tests are needed. Perimeter monitoring is good but not a substitute. CA prefers Equivalent if/when annual source tests are required via rule or permit.**
63.544 (e)	Following initial performance test to demonstrate compliance with the limits specified in 63. 544, conduct annual performance test. (Also, this statement implies that an initial performance test is required.)		**Same as above.**
Notification Requirements Section 63.549	**Notification Requirements**	**Notification Requirements**	
63.549 (a)	Requires O & Os to comply with notif. rqmts of 63.9 (General Provisions part). Several types of notifications are covered in 63.9 and include: o Initial Notification that existing or new or reconstructed source is subject to the rqmts. Of the rule; o Notification of performance test; o Notification of the date of CMS [CEM] performance evaluation; o Notification of compliance status (i.e., the initial compliance status report).	District staff states sources are submitting initial notification. District requires test protocols to be approved prior to source testing. However, it is possible that any inspection form filled out before source was issued permit to operate (P/O) may be a possible substitute for a compliance status report. During field inspections, some past inspection forms need to be reviewed as to their applicability to this issue.	**Equivalent/Moot. Sources have already submitted initial notices and initial compliance cert in Title V application.**
63.549 (b)	Requires O & Os to submit the Fugitive Dust Control Operating Procedures Manual [per 63.545 (a)] & the Operations and Procedures Manual for Baghouses to the Adm or delegated represent. for review & approval. Dates for submittal by existing and new & recon. sources are specified.	Rule 1407, section (e) and Rule 1420, section (e) require fugitive emission control and housekeeping requirements. The source is also required to submit a compliance plan to satisfy these requirements.	**Equivalent.**
Recordkeeping & Reporting Section 63.550	**Recordkeeping and Reporting**	**Recordkeeping and Reporting**	
63.550 (a)	Comply with all recordkeeping rqmts of 63.10 of subpart A (General Provisions) plus keep the records indicated below for at least 5 years. Since (b)(2) of 63.10 says to keep records relevant to the Startup, Shutdown, & Malfunction Plan, it appears that this plan must also be prepared by the source.	Rule 1420, section (i): Effective date 1-1-94, O & Os subject to lead rule are required to maintain 2 yrs of the following records: Districts general recordkeeping rule, R. 109, last amended 3-6-92, requires records to be kept on site for 2 years. However, District rule 3004(a)(4)(E), addressing Title 5 permits, requires recordkeeping for major sources for 5 years.	**Equivalent.**

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
63.6 (e)(3)	Startup, Shutdown, and Malfunction Plan. (I) The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under § 63.8(c)(1)(I), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit.	Sources required to be in compliance during startup and shutdown-no excess emissions-no issue. Breakdown provisions in R., 430 very similar to EPA malfunction requirements. Also, District spokesperson indicated that permits may contain conditions that source cease operation if equip. malfunctions.	**Equivalent if previous discussions of SSM/Breakdown are acceptable. There is no SS plan needed in SC because compliance is always required even during SS. If you have a breakdown, you are in violation. But you can get a variance which removes penalties. SC has no malfunction PLAN, or set of steps to minimize emissions.** CA position Breakdown provision including breakdown variance result in requirements at least as stringent as the malfunction provision in the MACT. Do not believe breakdown plans are needed. See previous discussion on breakdown plan.
63.550 (a)	Keep the following additional records for 5 years: (1) Relates to bag house detection alarms; (2) For sources using afterburner tem. device, certain specified information required; (3) For sources demon. compliance by using CEMS, certain specified information required; (4) Any records required to be kept under the Op. & Proced. Manual for Fugitive Dust Emiss.; (5) An records required per the Op. & Procedures Manual for Baghouses; (6) Pressure drop and flow rate records when wet scrubber used as control;	District Regulation 30, Title V, applicable for same records.	**Equivalent.**
63.550 (b)	Prepare and submit reports per 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under 63.10 (e)(3) [which refers to submittal of the Excess Emissions and Continuous Monitoring Report on a semi-annual basis]. Thus all reports required are on a semi-annual basis.	- Initial notifications are submitted to District - Rule 430 requires sources to report malfunctions (breakdowns) to the district as they occur - H&SC section 42706 requires sources to submit a report of excess emissions recorded by a CEM within 96 hours of occurrence to the District. In turn, the District has five working days after receiving the report of the violation to report it to the ARB.	**Equivalent. Title V requires the 6 month reports anyway. The content and details of the six month reports are in the MACT See memo discussion of inspector substitution for semi-annual reports. Quarterly reports reqd under MACT, but SC procedure of prompt reporting of breakdowns is equivalent.**
63.550 (c)	In addition to the information required under Sec. 63.10 of the General Provisions, reports required under paragraph (b) of this section shall include the information specified in paragraphs (c)(1) through (c)(6) of this section.		**Equivalent if SC rule is changed or these MACT requirements are specified in the permit.**

September Update to ARB August 12, 1997 CONFERENCE CALL - NESHAP EQUIVALENCY ANALYSIS FOR SECONDARY LEAD SMELTING

40 CFR Part 63 June 13, 1997	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	Federal NESHAP Requirement	SCAQMD Rules	
	(1) The reports shall include records of all alarms from the bag leak detection system specified in Sec. 63.548(e). (2) The reports shall include a description of the procedures taken following each bag leak detection system alarm pursuant to Sec. 63.548(f) (1) and (2). (3) The reports shall include the information specified in either paragraph (c)(3)(I) or (c)(3)(ii) of this section, consistent with the monitoring option selected under Sec. 63.548(h). (I) A record of the temperature monitor output, in 3-hour block averages, for those periods when the temperature monitored pursuant to Sec. 63.548(j)(1) fell below the level established in Sec. 63.548(j)(1). (ii) A record of the total hydrocarbon concentration, in 3-hour block averages, for those periods when the total hydrocarbon concentration being monitored pursuant to Sec. 63.548(j)(2) exceeds the relevant limits established in Sec. 63.543 (c), (d), and (e). (4) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under Sec. 63.548(a), including an explanation of the periods when the procedures were not followed and the corrective actions taken. (5) The reports shall contain an identification of the periods when the pressure drop and water flow rate of wet scrubbers used to control process fugitive sources dropped below the levels established in Sec. 63.548(I), and an explanation of the corrective actions taken. (6) The reports shall contain a summary of the fugitive dust control measures performed during the required reporting period, including an explanation of the periods when the procedures outlined in the standard operating procedures manual pursuant to Sec. 63.545(a) were not followed and the corrective actions taken. The reports shall not contain copies of the daily records required to demonstrate compliance with the requirements of the standard operating procedures manuals required under Secs. 63.545(a) and 63.548(a).		**There is a difference of opinion concerning whether a parameter exceedance is an emissions violation. AED says this is the fundamental principle of enhanced monitoring. CA points out that the source may be achieving 100 times or 1000 times fewer emissions than the standard; therefore, a parameter exceedance may not result in excess emissions. AED replies that the parameter should be reset.** **There is also a difference of opinion on whether breakdown, which are reported almost immediately in the SCAQMD , need to be reported in the 6 month report. CA points out that the reports are to be sent in "no less frequently than every six months", so the breakdown report should suffice. AED sees value in seeing all the breakdowns in one report, so that all involved can see the big picture, or the pattern that may be developing.** CA position Equivalent if/when district requires via rule or permit excess emission reports consistent with the requirements of the MACT.
Performance (source) test requirements [63.7 & 63.9]	Conduct 180 days after compliance date & submit results with Initial Compliance Status Report	District conducts startup inspections and initial compliance test	**Equivalent.**

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Sources Covered*	• Covers major HAP sources manufacturing wood furniture. HAPs covered are those listed in §112(b).	• Applies to any source coating wood products [SC 1136(a)]. • Applies to all solvent cleaning operations and the storage and disposal of VOC-containing facilities [SC 1136(c)(3) and SC117(c)(1)(b)]. • Applies to users of adhesives [SC 1168(b)(h)]. •SC regulates VOC only.	• **Equivalent** (plus) • SC1136 covers a broader class (wood products vs. wood furniture) than the NESHAP. • The rule also applies to smaller sources)1 gal/day vs. 8 gal/day). • **Equivalent** • Some sources covered by the NESHAP are exempted in SC 1168(j)(7)]. However, the threshold for the exemption is the MACT level of emissions. • **Equivalent If/When** SC Rules regulate or permit HAPs. Now, the SC Rules do not regulate the same pollutants as NESHAP.	If "plus" become significantly relevant, then team would need to evaluate its magnitude (for comparison purposes). For major sources, SC might need permit conditions that are appropriate and based on regulatory requirements (Henry's language?) consistent with the interim PTE policy. SC can adjust definition of VOC for these rules (VOC = VOC plus VHAP that are not VOC). Implementation needs to check how this works with (e.g., requirements test method).

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Exemptions*	• Exemptions for incidental furniture manufacturers (major sources which use no more than 100 gal/month of HAP during the furniture manufacturing process) [§63.800(b)(1)(2)].	• Exempts adh., abp, and ap. W/sep. formulations used in volumes of less than 10 gal.ea/facility/yr from emission standards [SC1168(j)(7)].	• **Equivalent** • Some sources covered by the NESHAP are exempted in SC 1168(j)(7). However, the threshold for the exemption is the MACT level of emissions.	
	• Small source exemptions based on usage (250 gal/month or 3000 gal/yr) [§63.800(b)(1)].	• Contains a more stringent small source exemption (less than 1 gal/day) [SC1136(l)(1)].	• **Equivalent**	
	• R&D facilities exempted.	• SC1136 does not exempt R&D Facilities.	• **Equivalent** • SC1136 Rules more stringent because it exempts fewer sources.	

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Applicability *Compliance Dates*	• Existing sources emitting less than 50 tpy of HAP in 1996 must comply by 12-7-98. [§63.800(e) • Existing sources emitting more than 50 tpy HAP in 1996 must comply by 11-21-97 [§63.800(e)]. • Existing sources which increase HAP to become major sources must comply within 1 year of becoming major [§63.800(e)]. • New sources must comply immediately upon start-up or by 12-7-95 [§63.800(f) • New area sources which increase their HAPs to become major must comply immediately upon becoming major [§63.800(f)]. • Reconstructed sources are subject to the same requirements as new sources [§63.800(g)].	• Some emissions standards take effect on 7-1-97 and 7-1-05 [SC1136(c)(1)(A)]. • Refinishing, replacement, and custom replica furniture operations must comply on 7-1-98 with the "7-1-97" standards [SC1136(l)(4)]. • The District will audit the SC1136 Rule for feasibility by 7-2003 [SC1136(k)]. • SC 1171 contains emission standards that took effect on 9-13-96 [CS 1171(c)(1)]. • Contains provisions stating that the District will revisit the feasibility of additional reduction from solvent cleaning by the year 2000 [SC 1171(d)]. • SC 1168 contains emission standards that took effect on 1-1-93 [SC 1168(c)(1)].	• **Equivalent If/When** The SC establishes compliance dates are the same as the NESHAP compliance dates. • **Equivalent If/When** The SC requires new sources to meet emission limitations for new sources the same as the NESHAP.	• **Comment**: SC could bring compliance dates in line with the NESHAP or use permit streamlining to incorporate compliance dates into Title V permits. • **Comment**: Need to fix the problem for major sources of HAP. SC could: set new source limit in rule and have appropriate applicability. Or SC could use straight delegation and permit streamlining to ensure appropriate "new source" requirements or SC could define TBACT to be at least as stringent as the NESHAP requirements for new sources.

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Units of Measure*	• Unit of standard is kg/VHAP/kg solids (or lb/lb).	• Unit is g VOC/L coat less water and exempt compounds. • SC 1136 allows sources to have the option of complying with g/L, lb/gal, or lb VOC/lb solids limit. • SC 1168 and SC 1171 have g/L and or mmHg limits.	• Not an "equivalency determination" issue per se	The difference in units may be an issue in the future depending on how a District wants to handle substitution (although the easiest approach is using the NESHAP format). There are issues that will occur if a District wants to not use the NESHAP format.

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards Specific Standards	**Sealers** ● 1kg HAP/kg solids for existing sources. ● 0.8 kg HAP/kg solids for new sources	**Clear Sealer** ● 550 g/L (1.39 lb VOC/lb sol) OR ● 680 g/L (3.36 lb/lb)	● **Equivalent If/When** NESHAP limits are incorporated via rule or permit	● **Comment**: May need to address conversion between g/l and ib/ib solids depending on how SC elects to add NESHAP limits.
	Topcoat ● 1 kg/HAP/ kg solids for existing sources ● 0.8 kg HAP/kg solids for new sources	**Clear Topcoat** ● 550 g/L (1.101 lb/lb) OR ● 275 g/L (0.35 lb/lb)		
	Basecoat ● 1 kg HAP/kg solids for existing sources ● 0.8 kg HAP/kg solids for new sources	**Pigmented P,S,U** ● 550 g/L (1.06 lb/lb) OR ● 600 g/L (1.08 lb/lb)		● **Comment**: It is difficult to convert between g VOC/L coating to g VOC/g solids. The conversion equation relies on information not readily available (density of solvents & solids). Lots of assumptions exist for this conversion.
	Enamels ● 1 kg HAP/kg solids for existing source ● 0.89 kg HAP/kg solids for new sources	**Pigmented Topcoat** ● 550 g/L (1.101 lb/lb) OR ● 275 g/L (0.25 lb/lb)		● **Comment**: Under NESHAP, new sources are required to meet more stringent requirements.

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Specific Standards*	**Foam Adhesive** ● 1.8 kg HAP/kg solids for ● 0.2 kg HAP/kg solids for new sources **Contact Adhesives** ● 1 kg HAP/kg solids for existing sources ● 0.2 kg HAP/kg solids	**Adhesives to Bond Dissimilar Substrates** ● SC 1168 has limits for adhesives to bond the following substrates: • Plastic Foam: 120 g/L • Porous-not wood: 120 g/L • Wood (30 g/L) **General Adhesives** ● General limit for adhesives in SC 1168 is 250 g/L	**Equivalent if/when** NESHAP limits are incorporated via rule or permit **Equivalent if/when** NESHAP limits are incorporated via rule or permit	Same as immediately above

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Miscellaneous Standards*	**Stains** ● 1 kg HAP/kg solids for existing sources ● 0.8 kg HAP/kg solids for new sources	**High Solids Stains** ● 550 g/L (1.23 lb/lb)	**Equivalent if/when** NESHAP limits are incorporated via permit or rule.	
	Washcoats ● 1 kg HAP/kg solids for existing sources ● 0.8 kg HAP/kg solids for new sources	**No Requirement.**	**Equivalent if/when** NESHAP limits are incorporated via permit or rule.	
	Thinners ● Max 10% HAP/3% HAP	**No Requirement.**	**Equivalent**. Or an "as-applied" basis as required throughout California.	
	Strippable spray booth material/coating ● 0.8 kg HAP/kg solids	**No Requirement.**	**Equivalent if/when** NESHAP limits are incorporated via permit or rule.	Need to check basis for 10%/3% compared to "as applied" basis.
	Strippers ● No requirement in this NESHAP	**Stripper**s ● 350 g/L material or VOC component of 2 mmHg or less @ 20°C	**Equivalent if/when** SC prohibits use of Table 4 VHAPs via permit or rule.	There is a paint stripper source category.
	General Cleanup and mold seal coatings ● No requirement	● SC 1171 has VOC limit of 850 g/L or VOC of 36 mmHg for solvents used to clean coating/adhesive application equipment ● 900 g/L or partial pressures of 20 mmHg for maintenance cleaning	**Equivalent** (plus).	

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Compliance Options*	• Use compliant coatings and adhesives [§63.804].	• Use compliant coatings (sources my use high VOC sealer with low VOC topcoat)[SC 1136(c)(1)(A)&(B)]. • Use compliant solvent [SC 1171 (c)(1)]. • Use compliant adhesives [SC 1168(b)].	**Equivalent if/when** NESHAP limits are incorporated via permit or rule.	Handled under specific standards.
Emissions Standards *Compliance Options*	• Use control devices with an efficiency equivalent or greater than 1 kg/kg for existing sources/coatings & adhesives (0.8 kg/kg new/coatings, 0.2 kg/kg new/adhesives) [§63.804(a)&(d)(3)].	• Use control which reduces VOC emissions by a level equivalent or greater than the level of VOC reduction achieved by the rule [SC 1136(c)(C)]. • Use controls with capture efficiency of 90% & control efficiency of 95% (or output less than 50 ppm carbon [SC 1171(c)(5)]. • Use control with overall efficiency of 80% [SC 1168].	• **Equivalent If/When** NESHAP limits are incorporated via permit or rule.	Potential solutions: SC could define VOC to include non-VOC VHAP or expand SC 1136(c)(C) to include VHAP although currently no sources use control devices to comply in SC.
Emissions Standards *Compliance Options*	• Use a combination of averaging, compliant materials, and control [§63.804(a)(4)&(d)(4)].	• Alternative emission control plan (AECP) via SC 108 [SC1168], [SC1136(i)].	• **Equivalent.** SC108 allows averaging only to the extent provided in NESHAP.	

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Emissions Standards *Compliance Options*	• Use a combination of averaging, compliant materials, and control [§63.804(a)&(d)(4)].	• Emissions averaging via averaging provisions [SC1136(c)(D)].	• **Equivalent** • Averaging provisions in SC1136 on a daily, solids-applied basis. NESHAP allows monthly averaging and stipulates that a violation of the monthly average is a separate violation of the standard for each day of the month unless the source can prove otherwise. NESHAP also solids applied. Averaging appears to be equivalent except for lb VOC/lb solids being different than lb HAP/lb solids.	
Emissions Standards *Compliance Options*		• Implies facilities may use mobile source ERCs or other alternative emission reduction schemes used by the District [SC1136(j)(2)].	Equivalent based on understanding that ERC cannot be used in place of specific NESHAP or delegated/substituted District or State Requirements. • Alternative emission reduction schemes allowed by the District are not necessarily allowed by the NESHAP (e.g. AQIP, vehicle scrappage, intercredit trading). Rules approved at the District level should not allow sources to circumvent specific NESHAP requirements.	Need to explain that these provisions do not have an effect on the underlying HAP Regs.

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards	• Work practice implementation plans required [§63.803(a)].	• Work practice implementation plans not required.	• **Equivalency disagreement.** Option 1 - Equivalency uncertain but acceptable not to require plans given (1) many years of MACT-level requirements and experience in the District (2) the District's ability (and practice) to use implementation plans as needed, and (3) developed inspection program with oversight/audit program. Option 2 - The District could develop (and then substitute) an easy to fill out form for operator that satisfies the requirements in the NESHAP.	Disagreement within team on utility of these plans. CARB agrees that records for specific requirements are appropriate for compliance. However, CARB does not agree records to document the operator's selection of optional compliance approaches or the basis for non explicit requirements is appropriate operator meets flexibility. EPA needs to check rationale for implementation plans. Issues are: requiring operator to develop activities beyond explicit rule requirements, who approves these activities, and keeping the plan up to date.

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards -operator training-	• Operator Training required. §63.803(b)].	• Operator training not required.	• **Equivalency disagreement** Option 1 - Equivalency uncertain but acceptable not to require plans given (1) many years of MACT-level requirements and experience in the District (2) the District's ability (and practice) to use implementation plans as needed, and (3) developed inspection program with oversight/audit program. Option 2 - SC/CARB prepare and distributed appropriate training material (instructional "comic" book and requires certification by operator that training has occurred). Option 3 - Equivalent if/when District incorporates "as-is" requirement via permit or rule.	CARB questions value of this requirement. EPA agreed with the regulatory negotiating committee that this requirement is valuable. EPA checking to see if teaching was primarily for operator using "conventional spray guns" that are not allowed by SC rules.
Work Practice Standards -leak detection/repair-	• Equipment Leak detection and repair [§63.803(c)]	• SC 1171 requires leak detection and repair	• **Equivalency Uncertain** but acceptable if/when SC adds requirement that leaking equipment shall be taken out of service (equipment never to be leaking).	SC might need to add "coatings" to solvents rule for leak detection program/for requirement of leak free operations.

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards -solvent accounting system-	● Cleaning and washoff solvent account system required [§63.803(d)]. Sources are required to list the chemical composition of cleaning and washoff solvents [§63.803(e)].	● SC 1136 requires "recycling onsite" but does not require a washoff solvent account system. Sources are not required to keep track of # of pieces stripped and why. However, SC 1136 requires sources to record the usage of stripper/washoff solvent and cleaning solvents ● SC 1112 requirements provide incentive for water based solvents. ● SC 1136 and SC 1171 do not require sources to record if spent solvent is recycled onsite or disposed offsite.	● **Equivalency disagreement** • However, SC 1136 requires sources to record the usage of stripper/washoff solvent and cleaning solvents. Option 1 - Equivalency uncertain but acceptable given SC1136 and SC1112, provide incentives that in effect motivate pollution prevention. Option 2 - Equivalent if/when SC incorporates requirements via permit or rule.	CARB disagrees with utility of this requirement. EPA agreed with regulatory negotiation committee that this pollution prevent requirement is reasonable. EPA needs to clarify that organic solvents only include HAP and VOCs (wfd) Check SC1112 for substitution potential. Also check SC1136 for recycling requirements.
Work Practice Standards -cleaning/washoff prohibition-	● Restricts use of certain solvent chemicals (table 4) in cleaning and washoff. [§63.803(e)].	● Sources are not require to follow restrictions on chemical (HAP) composition of cleaning and washoff solvents. Although SC 1401 limits use of some but not all prohibited solvents.	• **Equivalent if/when** SC incorporates prohibition via permit or rule.	

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards -storage-	• Requires storage in closed containers [§63.803(g)].	• Solvents are required to be kept in closed containers [SC1171(c)(4)]. • Coatings are required to be kept in closed containers [SC1136(c)(3)]. • Adhesives are required to be stored in a container after use [SC1168(c)(4)].	• **Equivalent** • **Equivalent** • **Equivalent**	
Work Practice Standards -spray booth-	• Limits the use of surface preparation compounds with more than 8% VOC to 1 gallon per booth [§63.803(f)].	• SC 1171 has a VOC limit of 900 g/L for maintenance cleaning but does not limit the amount of solvent used per booth.	• **Equivalent If/When** SC Rules require a limit on the VOC content and volume of solvent used per booth during surface preparation.	SC rule requires strippable booth. Need to check %VOC and amounts allowed to be used in permits.
Work Practice Standards	• Application Equipment [§63.803(h)]	• Supplies provisions for application equipment [SC1168(c)(6)], [SC1136(c)(2)].	• **Equivalent**	
Work Practice Standards	• Gun and line cleaning [§63.803(i) & (j)]	• Supplies provisions for gun and line cleaning [SC1168(c)(6)], [SC1136(c)(2)].	• **Equivalent**	

Comparative Analysis of South Coast (SC) Air Quality Management District Rules 1136, 1168, and 1171 Rules to EPA Wood Furniture NESHAP

Topic Area	NESHAP	South Coast Rules	Equivalency	Comments/Resolution
Work Practice Standards	● Formulation Assessment Plan	● SC Rules do not require a formulation plan but the sources are subject to AB2588.	● **Equivalency disagreement** Option 1 - SC may ignore MACT Option 2 - Equivalent if/when operator can show that this requirement is ultimately satisfied by operator complying with AB2588. Option 3 - Equivalent if/when SC implements requirement via permit or rule.	

Limit	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
Recordkeeping			
63.800 , Applicability (See Table 1))	General per 63.10(a), (b)): (a) Applicability & general information (b) General recordkeeping requirements (1) All files with necessary records to be maintained for at least 5 years, 2 years at the site. [63.10 is for general provisions for recordkeeping & reporting rqmts.]	Districts general recordkeeping rule requires records to be kept on site for 2 years.	**Equivalent, becauseTitle V program approval and Model Prohibitory Rule 3004(a)(4)(e) requires 5 year retention for major sources. For area sources, this is deficient, however, CA has proposed keeping the fee billing records for the additional years to total 5 years for area sources which is a good solution. It would be equivalent if/when they did this.**
63.804 Compliance Procedures & Monit. Rqmts.	(Recordkeeping rqmts inherently reflect most of the monitoring rqmts)		
63.806 Recordkeeping Rqmts			
63.806 (a)	O & Os shall fulfill all recordkeeping rqmts of 63.10 of Subpart A, as modified by 63.800 (d), and of the following:		
63.806 (b)	Maintain records of the following: (1) Certified product data sheet for ea finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emiss limits in 63.802. (2) VHAP content, in kg VHAP/kg solids, as applied, of each finishing material & contact adhesive subject to emiss limits in 63.802 (3) VOC content, in kg VOC/kg solids, as applied , of ea strippable booth coating subject to emiss limits in 63.802 (a)(3) or (b)(3)	109 (c) All daily records to be maintained at the site for the most recent two year period. Records include the following: (I) Amount and type of adhesive, coating, solvent and/or graphic arts material used in ea permit unit or dispensing station, including exempt compounds; (II) VOC content in each adhesive, coating, solvent, and/or graphic arts material. VOC content shall be calculated using a percent solids basis (less water & exempt solvents); or testing shall be done using EPA Reference Method 24; (III) Amount of diluent, surface preparation, clean-up, or wash-up solvent (including exempt compounds) used and the VOC content of each; (IV) Where applicable, the vapor pressure of solvents used as surface cleaners; and (V) Oven temperature (for coating operations).	**Not equivalent unless rule is changed or permit is an acceptable mechanism. Field experience showed that one of the sources did and one did not have MSDS sheets in their permit. Needs VHAP, not just VOC content.** **CA wording** **Equivalent if when** VHAP records requirement is added to address HAP information needed for MACT requirement. CA believes that manufacturers should be responsible providing VHAP information. They recommends that EPA require manufacturers to put VHAP/VOC content on cans and MSDS sheets.

Limit	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
			Same issue as in aerospace. CA believes that rule 109 gets the same info. as MACT with addition of HAP information requirement. similar.
63.806 (c)	Maintain records of the following: Copies of the averaging calc for ea month following the compliance date plus data on the quantity of coatings and thinners used to support calculations of E in Eq. 1.	1136 (d) Requires maintaining records of the following: 1136(c)(1)(D) states O & Os may comply with VOC coating limits, subparagraph (c)(1)(A), by using an averaging approach on a daily basis. O & Os shall demonstrate that actual emissions being averaged are less than or equal to 90% of the daily allowable emissions. The inequality equation stated in 1136 (c)(1)(D)(i) shall be used. O & Os shall submit an Emissions Averaging Plan to the Executive Officer. The plan shall include, at a minimum: (I) A description of the wood product coatings included in the averaging; and (II) A description of the quantification and recordkeeping procedures for coating usage; coating VOC and solids content; VOC emissions; and calculations to show daily compliance with 1136 (c)(1)(D)(i).	**Equivalent. Needs VHAPs. See discussion** above. South Coast averaging is for a shorter time period (daily) and greater reduction in emissions (90% of daily allowable) We conclude that SC averaging in Equivalent+.
63.806 (d)	Maintain records of the following: Those required by 63.806 (b) and by: (1) Solvent & coating additions to the continuous coater reservoir; (2) Viscosity measurements; (3) Data demonstrating that viscosity is an approp parameter for demonstrating compliance	Nothing quite similar in SC rules.	**Equivalent. Rule 109 requires these records. Most Districts will most likely not allow viscosity as an alternative.**
63.806 (e)	Maintain records of the following: For sources subject to work practice stands per 63.803, a copy of the work practice implementation plan & all records associate with fulfilling it, including, but not limited to: (1) Required training prog records; (2) Records collected per inspection and maint. plan [per 63.803 (c)]; (3) Records associated with cleaning solvent accounting syst; (4) Records associated with limit on use of convent air spray guns showing total finish material usage & percent of finish materials applied with convent air spray guns for ea semiannual period--per 63.803 (h)(5); (5) Records associated with formulation assessment plan--per 63.803 (1); (6) Documentation such as logs developed to demonstrate other provisions of work practice implement plan are followed	Nothing similar in SC rules. We discussed the “comic book” training materials. But CA is not proposing to have any record of their use of the individuals trained. Solvent accounting. CA agrees that tracking is okay, but # of parts is not needed. Too broad. CARB.	**Not equivalent unless permit is an acceptable mechanism. CARB disagrees with the utility of much of this information. Wood industry agreed this work practice is a good idea.** **CA position:** **Disagree with need for work practice implementation plan and associate records. See discussion in emission limitation section.** **Equivalent if/when underlying work practice standards and associated records are required via permit or rule.** **SC does not allow use of conventional air guns** **Detail of the records an issue.**

Limit	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
63.806 (f)	Maintain records of the following: For sources using control device to establish compliance per methods in 63.804 (f) (4) or (g) (4)and after conducting initial perf. test provide: Calculations demonstrating that overall control effic (R) of the control syst results in the value of E<INF>ac required by Eq. 2 or 4; records of the operating parameter values established to show continuous compliance of the capture device, and those parameters during performance testing critical to ensuring compliance with the standard; & copies of the semiannual compliance reports required by 63.807 (d). Control device parameters identified by EPA for an incinerator include: minimum combustion temp for a thermal incinerator; minimum gas temp both upstream & downstream of the catalyst bed for a catalytic incinerator with fixed catalytic bed; minimum gas temp upstream of the fluidized catalyzed bed and pressure drop across the catalyst bed for catalytic incinerator with a fluidized bed. Control device parameters identified by EPA for a carbon adsorber include the total regeneration mass stream flow for ea regeneration cycle & the carbon bed temperature after ea regeneration , or the conc level of organic compounds exiting the adsorber.	1136(c)(1)(C) states O & Os may comply with provisions of paragraph 1136 (c)(1)(A) and (B) by using an approved air pollution control system, consisting of collection and control devices. The minimum required overall control efficiency of an emission control system shall be calculated by using the control efficiency equation in 1136 (c)(1)(C), which relates control efficiency to the VOC limit of Rule 1136. District currently requires this information as part of the permitting process. District currently establishes operating parameter requirements in permitting process.	**Not equivalent unless rule is changed or permit is an acceptable mechanism. Need to identify critical operating parameters.** **CA prefers** **Equivalent if/when the district requires calculation and operating parameter requirements consistent with the MACT via rule or permit.** ARB supports the idea of identifying critical operating parameters, unless compelling engr analysis supports alternative parameters.
63.806 (g)	Maintain records of the following: Copies of the calculations demonstrating that overall control effic.(R) of the control system results in the applicable value of G<INF>ac calculated using Eq. 3; records of the operating parameter values selected as indicating compliance, and copies of the semiannual compliance reports required by 63.807 (d)	South Coast rules 1136 (Wood Products Coatings) and 109 (Recordkeeping for Volatile Organic Compound Emissions) do not "specifically" address this requirement. District currently establishes operating parameter requirements in permitting process.	**Not equivalent unless rule is changed or permit is an acceptable mechanism.** **CA prefers** **Equivalent if/when calculations are required consistent with the MACT via rule or permit.**
63.804 (g)(4)	O & Os using control devices, shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to manufacturer's specifications.	[Part (g) of 1136]: Each coating operation controlled by a control device must have a CEM approved by the Dist E.O. Records of the monit. devices and other data necessary to demonstrate compliance are required to be maintained on the premises for two years. Compliance with (c) (1)(C) shall be determined by source testing and/or evaluating CEM data.	**Equivalent, except for the two year retention, discussed above. If records are kept for the 5 years by the Agency, it will work.** Essentially equivalent.
63.806 (h)	Maintain records of the following: Compliance certifications submitted per 63.807 (c) for ea semiannual period following the compliance date.	Nothing directly comparable by the District, although completed annual inspection forms conceivably could be argued as a substitute for any ally required certification form from the source.	**Not equivalent, but Title V permit will require these reports of all major sources, so issue is moot. See discussion of substituting semi-annual reports for inspectors report.**

Limit	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
			CA prefers Equivalent since Title V will require the maintenance of these certifications/reports.
63.806 (i)	Maintain records of the following: All other information submitted with the compliance status report and the semiannual reports.	Nothing comparable in district rules.	**Not equivalent, but Title V will require retention. Issue moot.** **CA prefers Equivalent since required by Title V.**
63.6(e)(3)	(3) Startup, Shutdown, and Malfunction Plan. (i) The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under § 63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit.	Breakdown provisions, 430: Very similar to EPA malfunction requirements. Check permit conditions for any startup and shutdown conditions.	**Essentially equivalent, but see general discussion of malfunctions vs. Breakdowns. CA has no breakdown plan requirement, but needs no Startup/Shutdown plan because compliance is required during S/S.** **CA disagrees that breakdown plan is needed. District breakdown requirement are an equivalent substitute.** **CA approach is a deterrent-based. MACT is preemptive, preventional, AND retaliatory.**
Reporting			
63.807 Reporting Rqmts			
63.807 (a)	Fulfill all reporting rqmts of 63.7 thru 63.10 of subpart A (General Provisions) according to the applicability criteria of 63.800 (d).	See comments below.	
Initial Notification [63.9]	Initial Notification: existing sources 9-3-96 new sources 12-7-95 or upon startup - name & address of owner/operator - address of facility (physical location) - NESHAP - description of nature, size, design, method of operation, design capacity, id of each HAP	Check permit conditions.	**Equivalent. Title V Permit application contains substantially all this information. Check to ensure HAP content on the Title V permit application.**
63.807 (b)	Submit initial compliance status rpt required by 63.9 (h) of subpart A no later than 60 days after compliance date. Report shall include compliance demonstrating information required by: 63.804 (f)(1): Submit the results of the averaging calculation; 63.804 (f)(2): For sources subject to provisions of 63.802 (a)(1) or (b)(1), a report stating that compliant stains, washcoats,	Nothing directly comparable in District rules, although a completed inspection form in which all the requirements in the district rules for the affected source have been judged and documented conceivably could be argued as a substitute for the initial compliance status report.	**Equivalent if we can use the initial compliance inspection to satisfy this requirement. CA does not issue a Title V permit or any permit unless the source is in compliance, as confirmed by the initial inspection. Seems like a**

Limit	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	sealers, topcoats, basecoats, enamels, and thinners, as applicable, are being used; 63.804 (f)(3): report that sources using continuous coaters are in compliance with requirements; 63.804 (f) (5): report that compliant adhesives are being used; 63.804 (f)(7): report that compliant strippable spray booth coatings are being used; 63.804 (f)(8): report that work practice implementation plan has been developed & procedures have been developed for implementing the provisions of the plan.		**good idea.**
63.807 (c)	Submit semiannual compliance status reports every six months after the initial compliance status report. The report shall include information required by 63.804 (g), as follows: 63.804 (g)(1): Demonstrate continuous compliance by submitting the results of the averaging calculation (Eq. 1) and submitting a compliance certification; 63.804(g)(2): Demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submit a compliance certification ; 63.804(g)(3): For sources using continuous coaters, use compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, use compliant thinners, and submit a compliance certification. In addition, maintain a viscosity in the reservoir that is no less than the viscosity of the initial coating by monitoring viscosity (as determined by a meter or testing), and submit a compliance certification related to such activity; 63.804(g)(5): Provide a compliance certification stating that compliant contact and/or foam adhesives have been used ea day in the semiannual reporting period, or should otherwise identify ea day non compliant contact and/or foam adhesives were used; 63.804(g)(7): Provide a compliance certification stating that compliant strippable spray booth coatings have been used ea day in the semiannual reporting period, or should otherwise	Nothing directly comparable in District rules, although a completed inspection form in which all the requirements in the district rules for the affected source have been judged and documented conceivably could be argued as a substitute for the initial compliance status report.	**Not equivalent, but Title V will require this anyway. Issue moot. See earlier discussion re: semi-annual reports.** **CA prefers Equivalent since report is required as part of Title V program. Specific requirement could be established via rule or permit. EPA indicated that reporting no excess emission is sufficient compliance certification.** **Query whether all this information will be included in permits. SC says they will put this into the permits.**

Limit	Monitoring, Recordkeeping and Reporting (MMR)		Analysis/Comment
	EPA Requirement[1]	SCAQMD Rules	
	identify ea day noncompliant materials were used; 63.804(g)(8): Provide a compliance certification stating that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan not implemented and ea day the provisions were not implemented. (Note: the semiannual report should include measures taken to bring the source into compliance where noncompliance during the reporting period was identified.)		
63.807 (d)	For sources required to use continuous monitors to demonstrate compliance with 63.804 (g)(4) and (6), submit the excess emissions and continuous monitoring system performance report and summary report required by 63.10 (e) of subpart A on a semiannual basis unless excess emissions occur. If they do, the report is required quarterly for at least a year after the excess emissions occur.	District requires CEM records to be kept but does not require submittal of any of these reports to a permitting agency.	**Not equivalent. However, quarterly reports for excess emissions not seen as essential by team, since the District requires "breakdown" excess emissions reports immediately.** **CA prefers** **Equivalent if when district requires reports of excess emission via rule or permit. Breakdown rules already require reporting of excess emissions..**
63.807 (e)	If after Nov 1988 the annual usage of VHAP identified in 63.803 (l) exceeds its baseline level, the O & O shall provide a written notification to the permitting authority of such increase, describes the amount, and explains why the exceedance occurred. The notification is to be submitted no later than 30 calendar days after the end of the annual period when the usage increase occurred.	Nothing comparable in district rules.	**Not equivalent. CA questions the need for this formulation assessment provision. It is a pollution prevention mechanism.** **CA position** **Equivalent substitute.** **AB 2588 requires emission inventory updates when increases exceed 10% of last inventory. Risk reduction plans required for significant risk sources.**
Performance test requirements [63.7]	Conduct 180 days after compliance date new: startup + 180 days existing >50 tpy HAPs: 11-11-97 + 180 days existing <50 tpy; >25 typ: 12-7-98 + 180 days Notify 60 days prior to test Report 60 days after test	Check permit condition.	**Equivalent if/when rule/permit incorporates MACT reqmts. SC requires these notices for tests and has already conducted the tests, taking toxics into consideration, as well as VOC. We may need a protocol for the substitute tests, as in the chrome approach. This is an over-arching issue.**

APPENDIX D

FOLLOW-UP ACTION ITEMS

Follow-up Actions

(✓ indicates action completed as of 11/20/97)

Definitions

1. EPA needs to define the relationship between Type I and Type II etchants with Type I and Type II chemical milling maskants better. (aero)

Emission Limitations

2. Region 9 will review district inspection form for procedures equivalent to the NESHAP. (gas distr)

3. SCAQMD needs to provide information on performance tests at lead facilities (QA'd previous test results are acceptable.) Performance was reported to be about 1.0 mg Pb/dscm. (sec lead)

✓ 4. ARB/SCAQMD needs to provide information on very small hard chrome plating operations using fume suppressant in place of add-on controls.(chrome)

Compliance Date

5. Region 9 needs to draft a "49-day" equivalency discussion. (gas distr)

Source Test Requirements

6. ARB/Region 9/SCAQMD will draft a protocol (like for Chrome MACT) to approve pre-existing performance tests, if necessary. (gas distr, sec lead)

7. EPA will review ARB's test methods associated with loading racks and cargo tank certification (CP 203) and determine if it is equivalent to the MACT test method. ARB provided a comparison in April 1997. EPA needs to determine if SCAQMD test method 501.1 and Methods 25a and 25b are equivalent to the MACT methods (Method 501.1 is a modified 25.1 and is SIP approved March 1989). ARB/SCAQMD need to determine when ARB recertification is needed versus when SCAQMD testing using 501.1 would be done. (gas distr)

Work Practice Standards

✓8. SCAQMD will determine if its abrasive blasting rules will establish requirements on depainting operations similar to the aerospace MACT. [answer No] (aero)

9. Region 9 will review district inspection form for equivalency to inspection requirements for floating roof tanks. (gas distr)

✓ 10. ESD needs to check basis for the lead MACT ventilation requirements and determine if SCAQMD's approach referencing ACGIH specifications is equivalent.

✓ 11. EPA and ARB need to develop equivalency for roadway cleaning. Equivalency may be determined if permit maintains current conditions, uses existing ambient monitoring to detect fugitive dusts for additional washdown as needed, and remainder of operation is completely enclosed/with vehicle wash operations. (EPA will check on basis for twice per day frequency.) (sec lead)

✓ 12. EPA needs to check the basis and intent of the work practice implementation plan requirement in the wood MACT. Issues include are: intent/basis for provision, are plans part of Title V permit and must follow Title V requirements to be amended, who approves these activities, and must source continue to update the plan. (wood furn)

✓ 13. EPA needs to clarify that organic solvents only include HAP and VOCs. [Indicated that regulation intent was to cover HAP containing compounds and not compounds that are non-VOC, non-HAP.] (wood furn)

✓ 14. CARB needs to draft rationale explaining that AB 2588 provides equivalency to formulation assessment plan. (wood furn)

Monitoring, Recordkeeping, Reporting

15. ARB/SCAQMD needs to check facility records to determine if mass balance can be calculated from the records maintained by the facility. (aero)

16. EPA check on basis and intent of the requirement to list all parts, subassemblies, and assemblies removed from the aircraft before depainting. (aero)

✓ 17. Region 9 to provide copies of initial notification to districts to avoid duplicate efforts. (all)

18. EPA/ARB/CAPCOA establish a group to develop a list of standard monitoring, recordkeeping requirements for add-on control systems. For commonly used control systems identify:

a) identify minimum monitoring requirement,
b) identify monitoring requirement that would be considered going beyond minimum,
c) identify recordkeeping to support minimum monitoring requirements,

d) identify alternative recordkeeping requirements that would go beyond the minimum recordkeeping (automated systems, interlocks)

19. EPA/ARB/CAPCOA establish a group to develop a list of standard monitoring and recordkeeping requirements for coating categories including:

a) identify minimum monitoring requirement,
b) identify monitoring requirement that would be considered going beyond minimum,
c) identify recordkeeping to support minimum monitoring requirements,
d) identify alternative recordkeeping requirements that would go beyond the minimum recordkeeping (automated systems, interlocks)

General

20. EPA/ARB/CAPCOA establish a group to develop a process for handling alternatives under 112(d) standards. Participation by ARB/CAPCOA contingent on commitment to delegate appropriate level of decision making to districts. Process needs to look at the following areas:

-case-by-case and source category alternatives via MACT/general provisions (possibly using the concepts in Chrome equivalency as strawperson)
-case-by-case and source category approvals via 112(l) program approval, equivalency-by-permit, revised test method approval process

✓ 21. EPA needs to determine what role it will take in requiring manufacturers to provide HAP information on MSDS and provide the information to customers. (ongoing effort)

APPENDIX E

LESSONS LEARNED FROM SACRAMENTO PROTOCOL EFFORT - *An EPA View*

LESSONS LEARNED FROM SACRAMENTO PROTOCOL EFFORT - *An EPA View*[1]

Overall, the *Sacramento Protocol* effort was successful in that it identified substitute provisions that would allow CARB and SCAQMD requirements to considered technically equivalent to the NESHAPs being considered. While the final steps of equivalency determinations were not within the mandate of the *Sacramento Protocol effort*, significant technical evaluations were completed, including areas where quantitative comparisons are not practical.

Because the *Sacramento Protocol* effort generally was a success and showed such technical evaluations can be completed given adequate resources and a reasonable time period, the EPA team members drafted an initial set of "lessons learned" from the effort. These "lessons learned" present a view by the EPA team members on (1) whether NESHAP add environmental protection in California and (2) a plan addressing how to proceed for the long run with efficient and effective delegation of this Federal program into California.

DO NESHAP ADD ENVIRONMENTAL PROTECTION IN CALIFORNIA?

The NESHAPs evaluated through the *Sacramento Protocol* achieve HAP emission reductions beyond what is required by the SCAQMD and CARB requirements. At the same time, the SCAQMD and CARB requirements provide significant reductions in HAP and these reductions need to be considered in making equivalency determinations. The monitoring, record keeping and reporting (MRR) requirements found in the NESHAPs add assurance that the emission reductions are achieved over time and provide a level playing field. With respect to emissions and MRR requirements, many substitute requirements were found to be equivalent as is or with modest changes and only a few areas of disagreement occurred.

NESHAP are more effective than CARB and SCAQMD requirements in a number of ways. Some NESHAP allow less emissions (i.e., the emission limitations are more stringent than) potential SCAQMD substitute (see coating requirements in the wood furniture MACT and gasket requirements in the gasoline distribution MACT). Some of the potential substitute requirements do not regulate non VOC HAPs, such as methylene chloride (see wood furniture and aerospace manufacturing/rework standards). Many NESHAPs contain emissions-related work practice and operational requirements specifically addressing HAP emissions which are not included in SCAQMD nor CARB requirements. Also, NESHAPs provide more stringent

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[1]This material represents the initial views and ideas of the EPA representatives of the *Sacramento Protocol* Team on how to handle the technical evaluations for future equivalency determinations. The information has not been reviewed by or commented on by the CARB or SCAQMD members of the team.

requirements for new sources and, occassionally, these new source requirements are more stringent than what has been required in SCAQMD or by CARB.

The NESHAPs also provide additional certainty in compliance measures and documentation of compliance in comparison to some of the SCAQMD and CARB requirements. First, some of the substitute requirements have compliance dates well into the future (see wood furniture MACT). While many of the SCAQMD permits currently contain conditions, some of these are not required by regualtion and are subject to change. Such a situation is not acceptable to ensure long term performance against stringent HAP emission limits. Accordingly, NESHAPs add ceratinty to the acheivement of these emission reductions. Also, while in many respect the SCAQMD has effective complaince measures, some of the NESHAP contain monitoring and recordkeeping provisions that carry compliance assurance a step forward and thereby provide an enhanced monitoring approach compared to the SCAQMD requirements. In contrast, EPA relies on recordkeeping to ensure complaince assurance over time and the SCAQMD and CARB value frequent inspections as a perferred way to ensure compliance (to reduce recordkeeping and reporting burdens).

A PLAN FOR FUTURE EQUIVALENCY REQUESTS

The EPA staff on the *Sacramento Protocol* team offer the following draft plan. These initial ideas are based on defining a specific set of roles and responsibilities for California regulatory agencies and EPA . In addition, the plan uses guiding principles to facilitate future equivalency determinations. These principles should help staff working their way through future deliberations. The guiding principles incorporate (1) general principles to help resolve issues not addressed in the *Sacramento Protocol* effort and (2) specific guidance resulting from the *Sacramento Protocol* effort for issues similar to issues resolved in the *Sacramento Protocol* effort. The EPA team members expect that a final version of this plan would be considered in the Section 112(l) revisions.

ROLES AND RESPONSIBILITIES

It is important for everyone working on equivalency determinations to understand their roles and responsibilities. The current regulatory text and guidance have not been clear enough to all participants working on equivalency determinations. With clearer (more detailed) roles and responsibilities, it is more likely that the work needed to make these determinations will occur on time and will reach mutually satisfactory conclusions.

District and ARB would ...

> complete tables comparable to those developed in the Sacramento Protocol exercise well before the compliance dates for the NESHAPs being addressed;

use the "general principles" developed from the Sacramento Protocol exercise as a basis for future equivalency requests;

explain amply all areas of uncertainty and provide the technical and policy basis for such equivalency requests; and

solicit EPA's views on areas of controversy or uncertainty well before submitting the request formally.

EPA would ...

update the "general principles" as called for by experience and communicate them periodically to all stakeholders on the Unified Air Toxics Webpage and in 112(l) guidance;

be open to areas of uncertainty and look for ways to integrate the State and Federal programs while ensuring the NESHAP emission reductions and compliance assurance;

provide (in a timely manner) technical and policy evaluations for areas of uncertainty, present them for public review, and determine the equivalency according to the "general principles;" and

be open to implementation issues during NESHAP development.

GENERAL PRINCIPLES

With the staff and management aligned as to their roles and responsibilities, it will still be necessary to have a common vision as to what are acceptable comparisons, evaluations, and bases for future equivalency determinations. Otherwise, all the lessons learned in the *Sacramento Protocol* effort could be lost and then repeated. After considerable debate about a number of issues with the technical aspects of equivalency determinations, the *Sacramento Protocol* team arrived at the specific findings documented in this report. These findings can be reviewed and generalized for future use. In looking to future equivalency determination, Districts, ARB and EPA should expect all parties generally to agree that ....

The emission reductions achieved by a NESHAPs must be achieved by State substitute requirements in all respects: applicability, compliance dates, emission limits (including methods) and emissions-related work practice requirements.

The monitoring, record keeping, and reporting in State substitute requirements must be as effective at determining compliance as in the NESHAPs. Where there is uncertainty in the comparison between the NESHAPs and substitute requirements, regular inspections and rule effectiveness measures with studies can augment the substitute requirements.

The determination and utility of NESHAP requirements are not a subject of the delegation process. However, if a State identifies potential problems in a NESHAP, EPA will consider

whether a rule change is appropriate. If interpretative guidance would be helpful, EPA would be responsive.

EPA will delegate authorities to States to make implementation decisions based on a State-Federal decision making process that encourages State autonomy and accountability.

SPECIFIC GUIDANCE

In addition to culling out the general principles within the conclusions reached by the *Sacramento Protocol* team, it is key that the many specific determination be highlighted. These specific determinations should form specific guidance for future equivalency determinations and should reduce significantly the amount of debate needed for mutual understandings. In evaluating specific equivalency determinations, Districts, ARB and EPA should expect the following specific findings (we should build this list as we learn more lessons) to be accepted:

With respect to applicability comparisons, all NESHAP affected sources must be covered by the substitute requirements with an appropriate "new " affected source implementing new source NESHAPs. That is, affected sources that construct or reconstruct under the substituted state/district rules must install new source NESHAPs (or its equivalent).

With respect to compliance dates, the NESHAPs define the date of compliance. Given that some uncertainty in a substitute State requirements (if they exist before the date of proposal of the NESHAPs) may be acceptable, it is important to note that an initial compliance determination can not be delayed beyond the 180 day compliance certification date required in the NESHAPs General Provisions.

With respect to emission limitations,

Line by line and holistic comparisons are required to make appropriate equivalency determinations for numerical limits, formats, methods and other parameters related to allowed emission rates,

Where there is uncertainty, emission-based comparisons should be used to address the uncertainty and make an appropriate decision.

With respect to work practices, use an analytical basis when comparing emissions-related work practices and best judgement when comparing other work practices.

With respect to MRR,

interlock and alarm systems can substitute for some recordkeeping requirements,

SOP and implementation plans can be referenced by the Title V permit with changes allowed where they do not related to emission changes (real or measured).